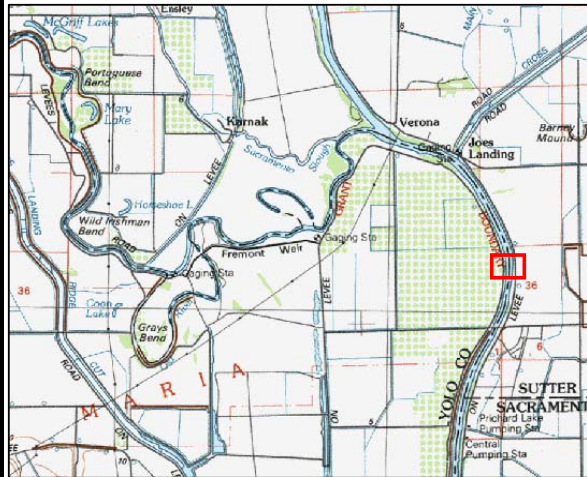


Sacramento River, RM 77.2L



Site Location Map



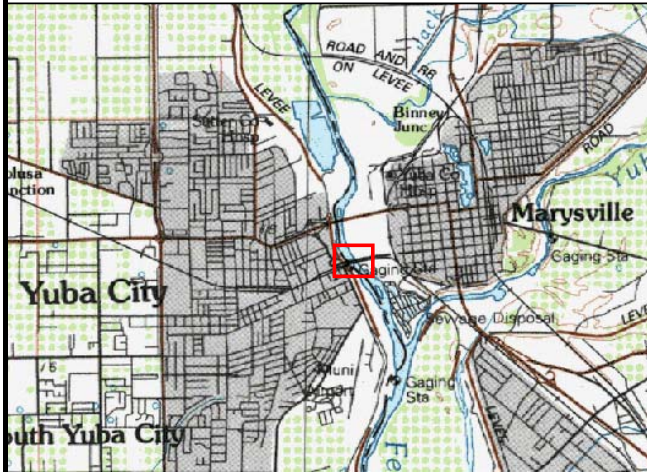
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	less than 1:1
Berm Width (*2) - Estimated	0	30 ft
Length of erosion	3	677 ft
Location of erosion	3	toe
Bank Stability	5	vertical sections greater than half bank height and animal holes
Radius of Curvature (R_c/w)	0	$R/w = 7.52$
Site Relative to Bend	3	outside of a gentle bend
Geomorph	0	no migration expected
Vegetation Cover	4	less than 20%
Tree Hazard	5	exposed roots, trees leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.01 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	5	Sacramento
Human Usage	4	weekly, paths and adjacent to road
Seepage Potential	5	history of seepage
Tidal Fluctuation	1	1 ft of tidal flux
Erosion Hazard	70	Calculate Erosion Hazard

Feather River, RM 28.5R (LM 14.5, Sutter County LD 1 West)



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

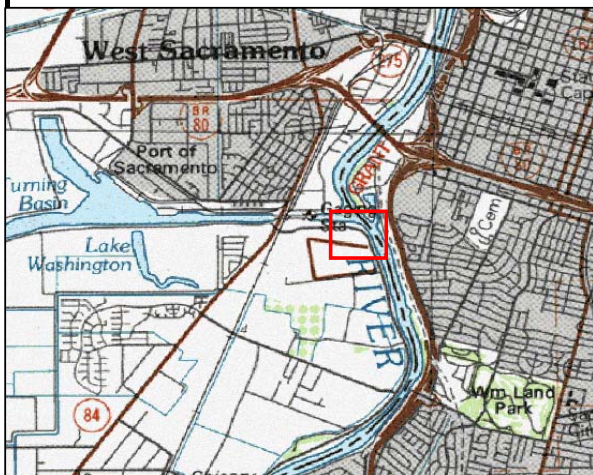
Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	5	0 to 10 ft of berm
Length of erosion	4	1260ft
Location of erosion	4	toe and lower slope
Bank Stability	5	vertical sections, less than half bank height, and caves
Radius of Curvature (R_c/w)	0	relatively straight
Site Relative to Bend	1	relatively straight
Geomorph	2	some migration possible on opposite bank
Vegetation Cover	1	70% veg cover
Tree Hazard	5	large trees with exposed roots, some leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.03 ft/s
Wave Action (Wind/Boat)	3	near boat launch, recreational boating and fishing
Economic Factor (*2)	4	Yuba City
Human Usage	5	daily, paths and garbage
Seepage Potential	0	no known seepage history
Tidal Fluctuation	0	no tidal influence

Erosion Hazard

70

[Calculate Erosion Hazard](#)

Sacramento River, RM 57.2R



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

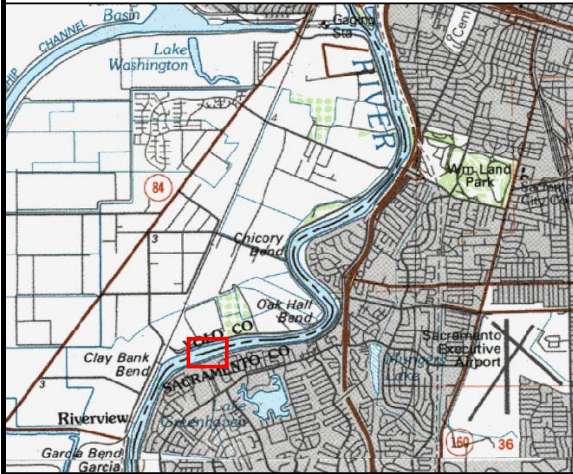
Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	5	0 to 10 ft
Length of erosion	2	300 ft
Location of erosion	4	toe and lower bank
Bank Stability	5	vertical sections and caves
Radius of Curvature (R_c/w)	1	$R/w = 4.9$
Site Relative to Bend	0	inside of a bend
Geomorph	0	tight levees, no migration possible
Vegetation Cover	1	70%
Tree Hazard	5	large trees, exposed roots and leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.16 ft/s
Wave Action (Wind/Boat)	4	heavy boating area
Economic Factor (*2)	4	West Sacramento
Human Usage	4	weekly
Seepage Potential	0	no know seepage history
Tidal Fluctuation	2	roughly 2 ft of tidal flux

Erosion Hazard

68

[Calculate Erosion Hazard](#)

Sacramento River, RM 52.3L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

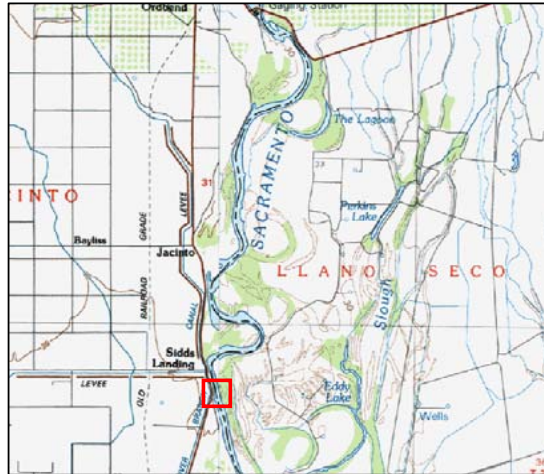
Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1
Berm Width (*2) - Estimated	3	5 to 10 ft
Length of erosion	3	1000 ft
Location of erosion	4	toe, lower bank, and berm
Bank Stability	3	cave, greater than 4 ft
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	2	60%
Tree Hazard	5	trees with some exposed roots and leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.97 ft/s
Wave Action (Wind/Boat)	4	heavy recreational boating area
Economic Factor (*2)	5	Sacramento
Human Usage	5	daily
Seepage Potential	0	no seepage
Tidal Fluctuation	2	about 2 ft of tidal flux

Erosion Hazard

67

Calculate Erosion Hazard

Sacramento River, RM 177.8R



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

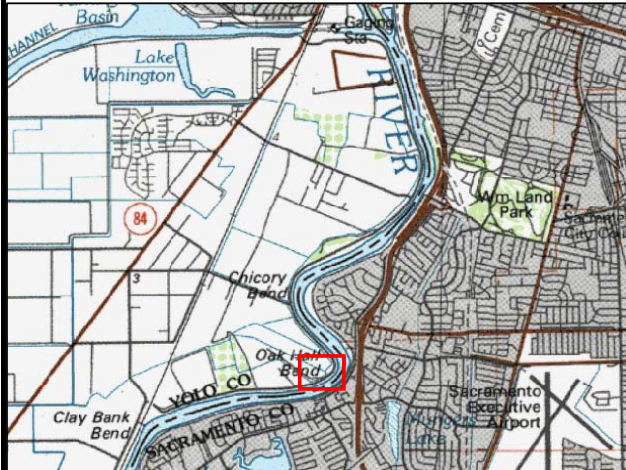
Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	4	1005 ft
Location of erosion	4	upper bank and toe
Bank Stability	2	vertical sections, less than half bank height, 40 to 50 ft scour hole
Radius of Curvature (R_c/w)	4	$R/w = 1.33$ (bend has migrated down from what is shown on the map)
Site Relative to Bend	5	outside of a less than 90 degree bend
Geomorph	2	migration possible on opposite bank
Vegetation Cover	2	60%
Tree Hazard	2	2 medium trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	4	5.27 ft/s
Wave Action (Wind/Boat)	2	low
Economic Factor (*2)	3	rural town of Willows
Human Usage	5	adjacent to road, next to a pump intake, daily use
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence

Erosion Hazard

66

[Calculate Erosion Hazard](#)

Sacramento River, RM 53.5R



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	3	5 ft of berm
Length of erosion	2	402 ft
Location of erosion	4	whole bank and toe
Bank Stability	2	small vertical sections
Radius of Curvature (R_c/w)	3	$R/w = 2.7$
Site Relative to Bend	0	inside of a bend
Geomorph	0	no migration possible
Vegetation Cover	2	50%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	4	sand and silts
Velocity (*2)	4	6.02 ft/s
Wave Action (Wind/Boat)	4	big boating recreation area
Economic Factor (*2)	4	West Sacramento
Human Usage	5	daily, parking area on levee, paths down, debris
Seepage Potential	0	no known seepage history
Tidal Fluctuation	2	2 ft of tidal flux

Erosion Hazard

66

[Calculate Erosion Hazard](#)

Sacramento River, RM 8.0L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

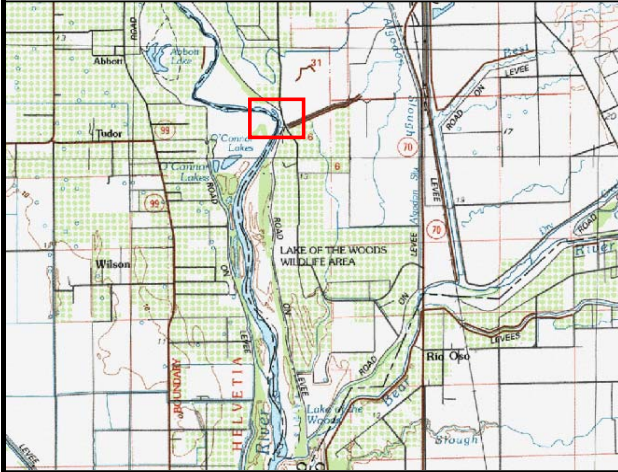
Criteria	Score	Notes
Bank Slope (*2)	5	near vertical
Berm Width (*2) - Estimated	5	no berm
Length of erosion	3	757 ft
Location of erosion	2	levee slope
Bank Stability	4	vertical for more than half bank height
Radius of Curvature (R_c/w)	1	$R/w = 4.54$
Site Relative to Bend	3	outside of a greater than 90 degree bend
Geomorph	0	no migration expected
Vegetation Cover	2	40 to 50 %
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.13 ft/s
Wave Action (Wind/Boat)	4	heavy winds
Economic Factor (*2)	1	Farms
Human Usage	4	adjacent to road, weekly
Seepage Potential	0	no history of seepage
Tidal Fluctuation	5	5 ft of tidal flux

Erosion Hazard

66

[Calculate Erosion Hazard](#)

Feather River, RM 17.8L



Site Location Map



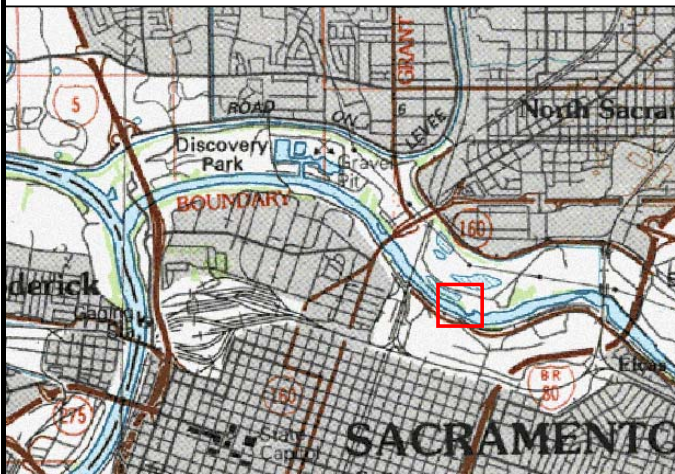
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	0	50 ft
Length of erosion	2	407 ft
Location of erosion	3	whole bank
Bank Stability	4	vertical sections for whole bank height
Radius of Curvature (R_c/w)	2	$R/w = 3.11$
Site Relative to Bend	5	outside of a slightly less than 90 degree bend
Geomorph	5	channel migration possible on both sides
Vegetation Cover	2	about 40 to 50%
Tree Hazard	5	large trees, roots exposed, and leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.63 ft/s
Wave Action (Wind/Boat)	2	only accessible to small boats, low wave action
Economic Factor (*2)	4	The community of Plumis Lake
Human Usage	1	Dumping spot but not much usage
Seepage Potential	5	seepage history
Tidal Fluctuation	0	no tidal flux
Erosion Hazard	66	Calculate Erosion Hazard

Lower American River, RM 2.8L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

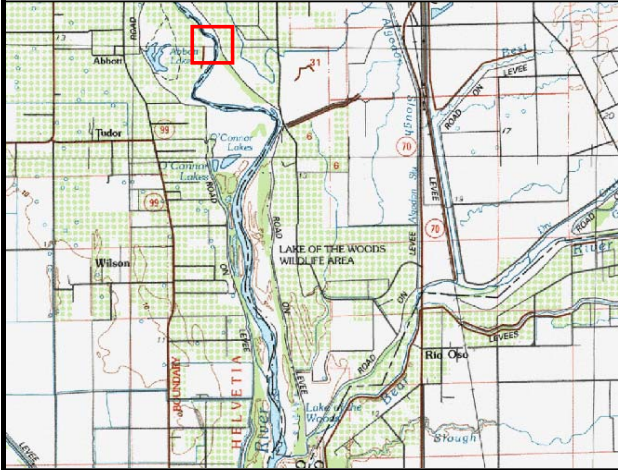
Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	2	10 to 20 ft
Length of erosion	2	280 ft
Location of erosion	4	whole bank and toe
Bank Stability	5	caves greater than 4 ft and vertical sections
Radius of Curvature (R_c/w)	0	$R/w = 6.43$
Site Relative to Bend	2	just downstream of a bend
Geomorph	0	no migration expected
Vegetation Cover	2	50 -60%
Tree Hazard	5	trees with exposed roots, some leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.39 ft/s
Wave Action (Wind/Boat)	3	moderate waves, speed limit of 5mph
Economic Factor (*2)	5	Sacramento
Human Usage	5	Debris and paths indicative of daily use
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal effect

Erosion Hazard

64

[Calculate Erosion Hazard](#)

Feather River, RM 19.7L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope or less
Berm Width (*2) - Estimated	0	50 ft
Length of erosion	2	307 ft
Location of erosion	4	whole bank and toe
Bank Stability	5	caves, greater than 4 ft and vertical sections
Radius of Curvature (R_c/w)	0	$R/w = 6.04$
Site Relative to Bend	3	outside of a greater than 90 degree bend
Geomorph	2	migration possible on opposite bank
Vegetation Cover	3	40 to 50%
Tree Hazard	5	large trees with exposed roots and trees sliding down the bank
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.34 ft/s
Wave Action (Wind/Boat)	2	accessible only to small boats
Economic Factor (*2)	4	near the community of Plumis Lake
Human Usage	1	rather steep, not too accessible, occassional
Seepage Potential	5	history of seepage
Tidal Fluctuation	0	no tidal flux
Erosion Hazard	64	Calculate Erosion Hazard

Feather River, RM 7L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

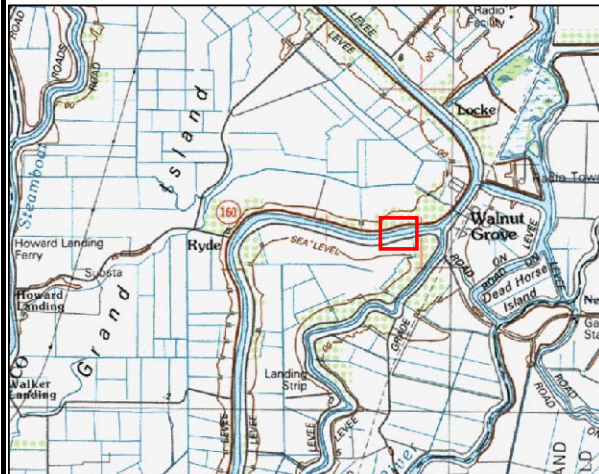
Criteria	Score	Notes
Bank Slope (*2)	1	2.5:1 on bank
Berm Width (*2) - Estimated	3	about 5 ft
Length of erosion	2	413 ft
Location of erosion	3	toe
Bank Stability	2	vertical sections, less than half bank slope
Radius of Curvature (R_c/w)	4	$R/w = 1.96$
Site Relative to Bend	3	outside of a greater than 90 degree bend
Geomorph	2	migration possible on opposite bank
Vegetation Cover	2	40 to 50 %
Tree Hazard	3	large trees
Soil Type (*2)	4	sands and silts with cobbles underneath
Velocity (*2)	5	9.97 ft/s
Wave Action (Wind/Boat)	3	moderate waves
Economic Factor (*2)	2	small towns of Verona and Nicolaus
Human Usage	5	multiple paths down the bank and trash
Seepage Potential	5	history of seepage
Tidal Fluctuation	0	no tidal flux

Erosion Hazard

64

[Calculate Erosion Hazard](#)

Sacramento River, RM 26.0L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 or less
Berm Width (*2) - Estimated	5	0 to 50 ft
Length of erosion	5	1547 ft
Location of erosion	5	bank, toe, and underwater
Bank Stability	4	vertical sections, greater than half bank height
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	1	70 to 80%
Tree Hazard	4	trees with exposed roots
Soil Type (*2)	2	clays and silts
Velocity (*2)	4	5.13 ft/s
Wave Action (Wind/Boat)	4	just downstream of a marina
Economic Factor (*2)	2	small town of Isleton
Human Usage	1	occassional
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux

Erosion Hazard

63

Calculate Erosion Hazard

Sacramento River, RM 49.7L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	2	10 ft of berm
Length of erosion	1	100 ft
Location of erosion	5	bank, toe, and underwater
Bank Stability	2	some small vertical sections
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	1	60%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	5	silts
Velocity (*2)	4	5.6 ft/s (UNET)
Wave Action (Wind/Boat)	4	heavy, recreational boating area
Economic Factor (*2)	5	Sacramento
Human Usage	4	bike path on top, weekly
Seepage Potential	0	no history of seepage
Tidal Fluctuation	2	2 ft of tidal flux
Erosion Hazard	62	Calculate Erosion Hazard

Georgiana Slough, RM 5.3L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

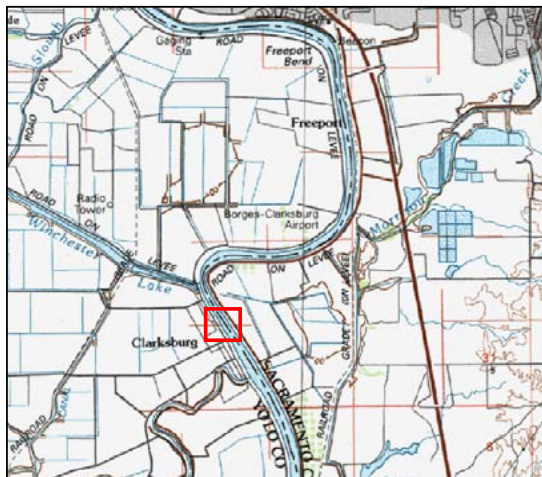
Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 or less
Berm Width (*2) - Estimated	4	less than 5 ft
Length of erosion	5	3071 ft
Location of erosion	5	levee slope, toe and underwater
Bank Stability	5	vertical sections and caves
Radius of Curvature (R_c/w)	0	$R/w = 7.52$
Site Relative to Bend	3	outside of a gentle bend
Geomorph	0	no migration possible
Vegetation Cover	1	70% cover
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.95 ft/s
Wave Action (Wind/Boat)	3	moderate boat wake
Economic Factor (*2)	1	Farms
Human Usage	2	seasonal
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux

Erosion Hazard

62

Calculate Erosion Hazard

Sacramento River, RM 42.7R



Site Location Map



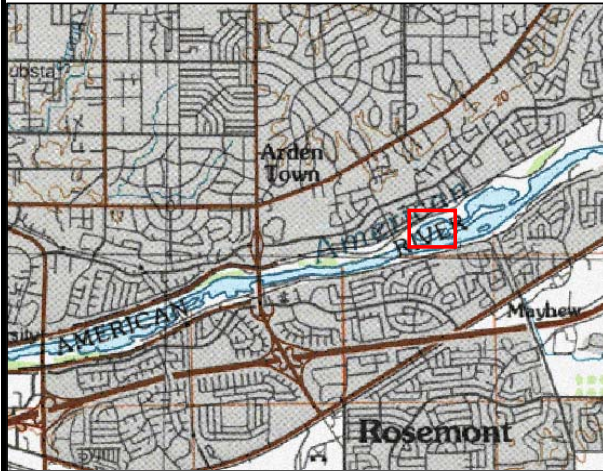
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	1	100 ft
Location of erosion	4	toe and lower bank
Bank Stability	2	vertical sections, less than half bank height
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	tight levees, no migration
Vegetation Cover	1	60 to 70 %
Tree Hazard	5	large trees, exposed roots, and leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.36 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	2	small town of Clarksburg
Human Usage	5	daily
Seepage Potential	0	no seepage history
Tidal Fluctuation	3	3 ft of tidal flux
Erosion Hazard	61	Calculate Erosion Hazard

Lower American River, RM 10.6L



Site Location Map



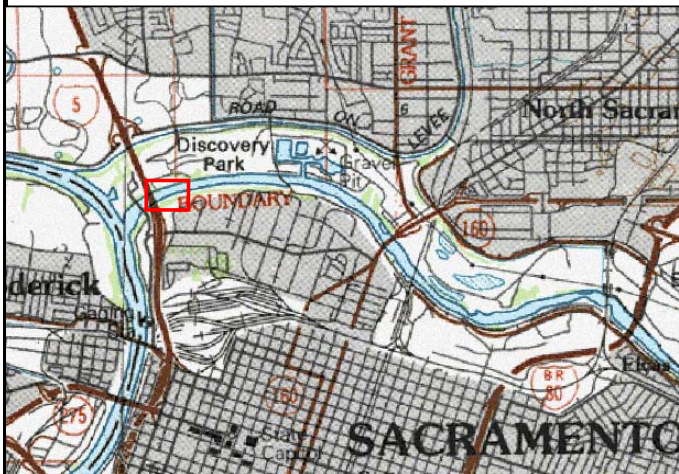
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	5	near vertical
Berm Width (*2) - Estimated	2	15 to 20 ft
Length of erosion	2	136 ft
Location of erosion	2	whole bank
Bank Stability	5	tree popouts and vertical sections
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration expected
Vegetation Cover	1	80%
Tree Hazard	5	large trees, exposed roots, and leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.94 ft/s
Wave Action (Wind/Boat)	3	moderate, boats but 5 mph speed limit
Economic Factor (*2)	5	Sacramento
Human Usage	4	weekly, trails
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal flux
Erosion Hazard	61	Calculate Erosion Hazard

Lower American River, RM 0.3L



Site Location Map



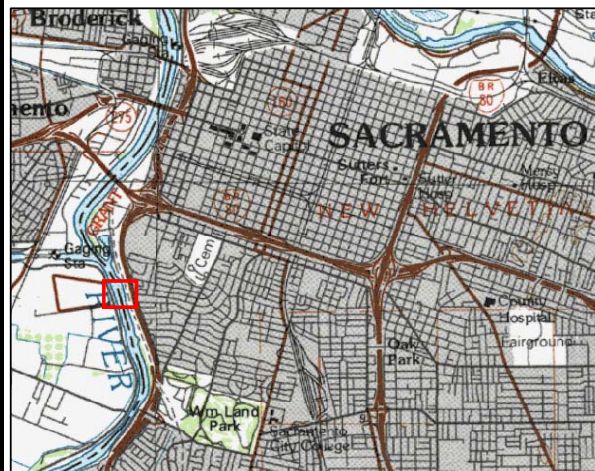
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	3	6 to 30 ft
Length of erosion	2	340 ft
Location of erosion	4	bank and toe
Bank Stability	0	no stability issues
Radius of Curvature (R_c/w)	0	$R/w = 5.16$
Site Relative to Bend	0	inside of a slight bend
Geomorph	0	no migration expected
Vegetation Cover	3	about 40 %
Tree Hazard	5	large trees with exposed roots, some leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.2 ft/s
Wave Action (Wind/Boat)	3	Near boat launch but 5 mph limit, moderate waves
Economic Factor (*2)	5	City of Sacramento
Human Usage	5	Bike path on top of levee, trails down, trash present, daily use
Seepage Potential	0	no history of seepage
Tidal Fluctuation	1	about 1 ft of tidal flux
Erosion Hazard	61	Calculate Erosion Hazard

Sacramento River, RM 57.0R



Site Location Map



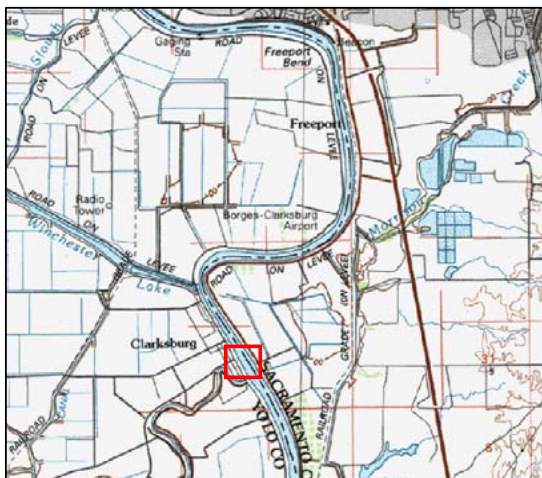
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	5	0 to 10 ft
Length of erosion	2	172 ft
Location of erosion	3	toe
Bank Stability	0	no vertical sections or caves
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration expected
Vegetation Cover	1	70%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.02 ft/s
Wave Action (Wind/Boat)	4	heavy recreation area
Economic Factor (*2)	4	West Sacramento
Human Usage	5	daily
Seepage Potential	0	no seepage history
Tidal Fluctuation	2	2 ft of tidal flux
Erosion Hazard	60	Calculate Erosion Hazard

Sacramento River, RM 41.9R



Site Location Map



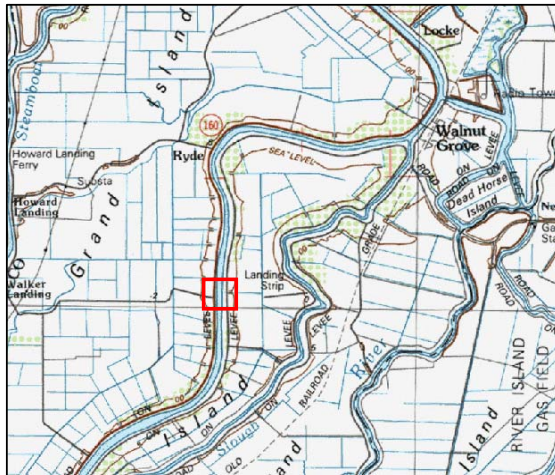
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	4	1360 ft
Location of erosion	2	lower bank
Bank Stability	1	caves from fallen trees
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	tight levees, no migration
Vegetation Cover	1	60 to 70%
Tree Hazard	5	large trees with exposed roots and leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.08 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	2	small town of Clarksburg
Human Usage	4	adjacent to road, pathway down, weekly
Seepage Potential	0	no seepage history
Tidal Fluctuation	3	3 ft of tidal flux
Erosion Hazard	60	Calculate Erosion Hazard

Sacramento River, RM 22.5L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	2	10 ft
Length of erosion	3	852 ft
Location of erosion	4	berm and toe
Bank Stability	5	caves, less than 4 ft, and vertical sections
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	0	90%
Tree Hazard	5	large leaning trees, exposed roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.54 ft/s
Wave Action (Wind/Boat)	4	heavy wind and boat area
Economic Factor (*2)	2	Small town is Isleton
Human Usage	4	weekly, path and picnic table
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux
Erosion Hazard	60	Calculate Erosion Hazard

Sacramento River, RM 10.8L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

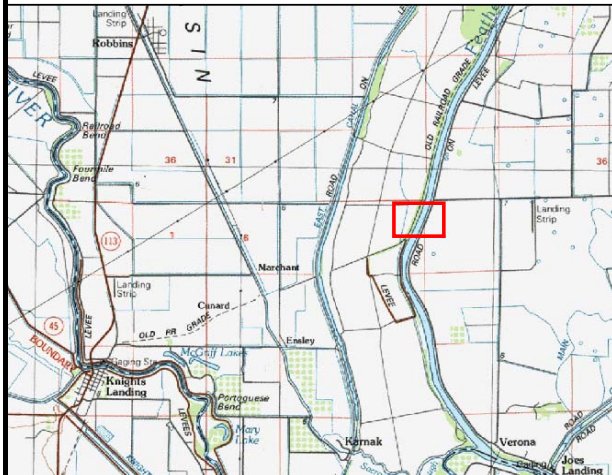
Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	2	400 ft
Location of erosion	1	mid bank
Bank Stability	2	vertical sections, less than half bank height
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration expected
Vegetation Cover	3	varies, 30 to 60 %
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	7.05 ft/s
Wave Action (Wind/Boat)	5	cargo ships pass by
Economic Factor (*2)	1	Farms
Human Usage	5	path and trash, daily
Seepage Potential	0	no history of seepage
Tidal Fluctuation	5	5 ft of tidal flux

Erosion Hazard

60

[Calculate Erosion Hazard](#)

Feather River, RM 3.8L



Site Location Map



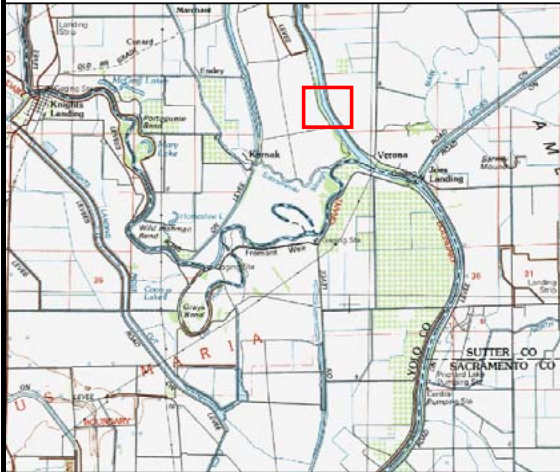
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	1	25 to 30 ft
Length of erosion	3	626 ft
Location of erosion	3	whole bank
Bank Stability	3	some holes from trees falling
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	2	migration possible on opposite bank
Vegetation Cover	1	70 to 80%
Tree Hazard	5	large trees with visible roots, some leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	7.08 ft/s
Wave Action (Wind/Boat)	3	moderate waves
Economic Factor (*2)	2	small town of Verona
Human Usage	4	adjacent to road, weekly use
Seepage Potential	5	history of seepage
Tidal Fluctuation	0	no tidal flux
Erosion Hazard	60	Calculate Erosion Hazard

Feather River, RM 1L



Site Location Map



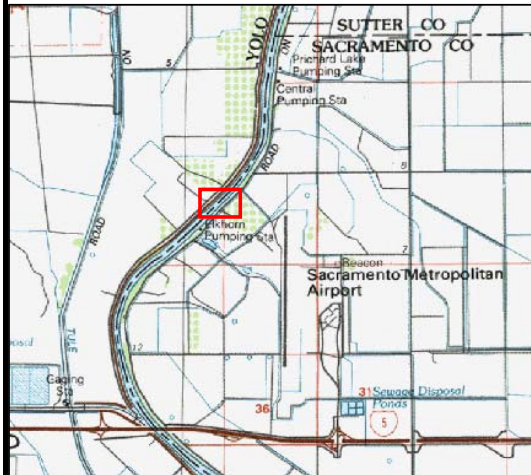
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	2	15 ft
Length of erosion	4	1052 ft
Location of erosion	5	toe and underwater
Bank Stability	2	vertical sections, less than half bank slope height
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	2	migration possible on opposite bank
Vegetation Cover	0	dense on bank, about 80%
Tree Hazard	4	trees with visible roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.46 ft/s
Wave Action (Wind/Boat)		moderate wave
Economic Factor (*2)	2	town of Verona
Human Usage	5	frequent, trails down to bank
Seepage Potential	5	seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	60	Calculate Erosion Hazard

Sacramento River, RM 73.5L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

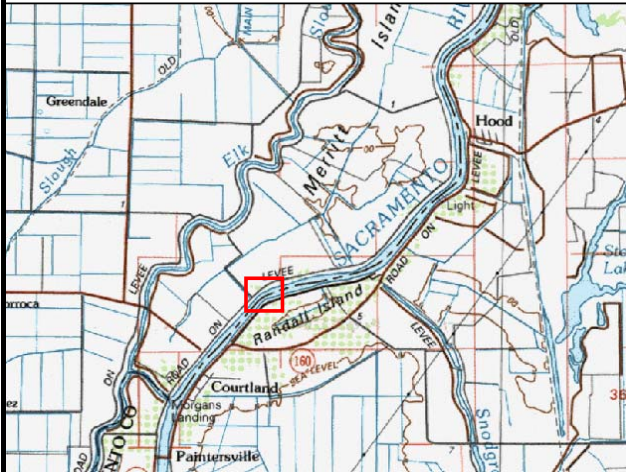
Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	0	30 to 50 ft
Length of erosion	4	1065 ft
Location of erosion	2	full bank
Bank Stability	5	vertical sections, greater than half bank height and caves
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	3	30%
Tree Hazard	3	large trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	3	4.74 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	5	Sacramento
Human Usage	4	weekly
Seepage Potential	5	seepage history
Tidal Fluctuation	1	1 ft of tidal flux

Erosion Hazard

59

[Calculate Erosion Hazard](#)

Sacramento River, RM 35.4L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

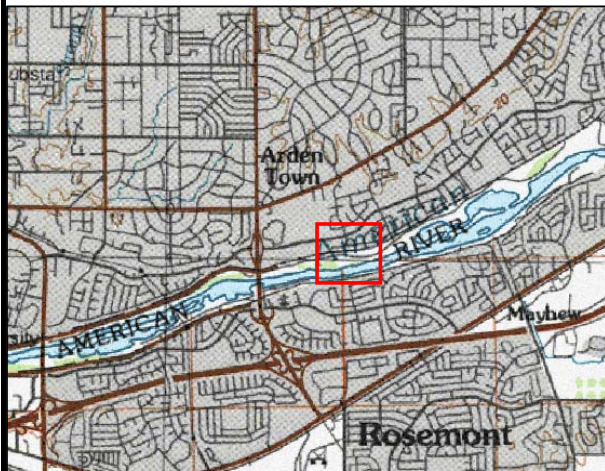
Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	2	499 ft
Location of erosion	4	toe
Bank Stability	5	vertical sections and caves
Radius of Curvature (R_c/w)	0	$R/w = 5.61$
Site Relative to Bend	0	inside of a bend
Geomorph	0	no migration possible
Vegetation Cover	1	70%
Tree Hazard	1	young trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	6.52 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	2	small town of Courtland
Human Usage	4	weekly
Seepage Potential	0	no seepage expected
Tidal Fluctuation	3	3 ft of tidal flux

Erosion Hazard

59

[Calculate Erosion Hazard](#)

Lower American River, RM 10.0L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

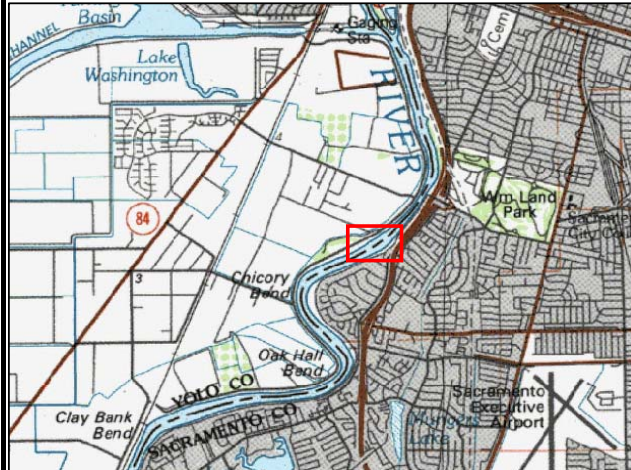
Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	2	10 to 15 ft
Length of erosion	2	500 ft
Location of erosion	2	lower bank
Bank Stability	2	vertical sections, less than half bank height
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration expected
Vegetation Cover	1	60%
Tree Hazard	5	large trees, some exposed roots, some leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	5	8.74 ft/s
Wave Action (Wind/Boat)	3	moderate, boats but 5 mph speed limit
Economic Factor (*2)	5	Sacramento
Human Usage	5	daily, people on banks, lots of trash and paths
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal flux

Erosion Hazard

59

[Calculate Erosion Hazard](#)

Sacramento River, RM 55.2L



Site Location Map



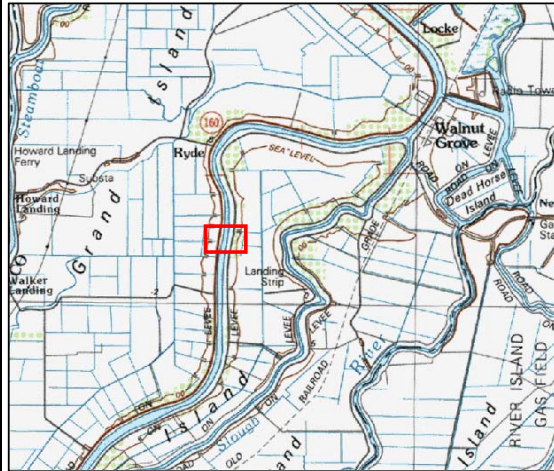
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	5	0 to 15 ft
Length of erosion	3	664 ft
Location of erosion	3	toe
Bank Stability	1	caves from tree popouts
Radius of Curvature (R_c/w)	0	$R/w = 6.98$
Site Relative to Bend	1	relatively straight
Geomorph	0	no migration possible
Vegetation Cover	1	70 to 80%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.5 ft/s (UNET)
Wave Action (Wind/Boat)	3	moderate boating
Economic Factor (*2)	5	Sacramento
Human Usage	2	seasonal
Seepage Potential	0	no seepage history
Tidal Fluctuation	2	2 ft of tidal flux
Erosion Hazard	58	Calculate Erosion Hazard

Sacramento River, RM 23.2L



Site Location Map



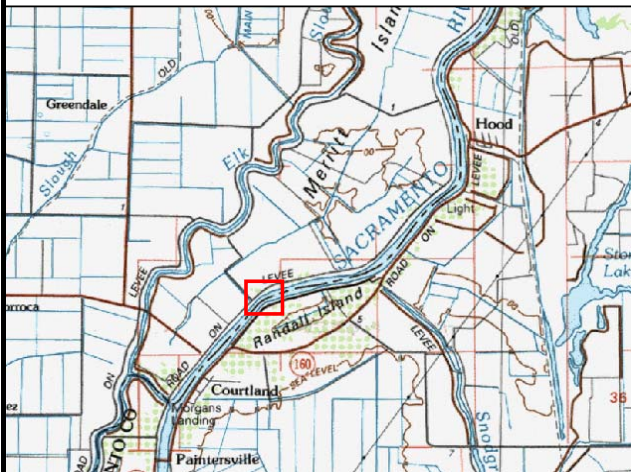
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	2	10 ft
Length of erosion	3	589 ft
Location of erosion	2	berm
Bank Stability	5	short vertical sections and caves
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	1	60 to 70 %
Tree Hazard	4	medium trees, exposed roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.16 ft/s
Wave Action (Wind/Boat)	4	heavy wind and boats
Economic Factor (*2)	2	small town of Isleton
Human Usage	4	weekly, path down
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux
Erosion Hazard	58	Calculate Erosion Hazard

Sacramento River, RM 35.4R



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

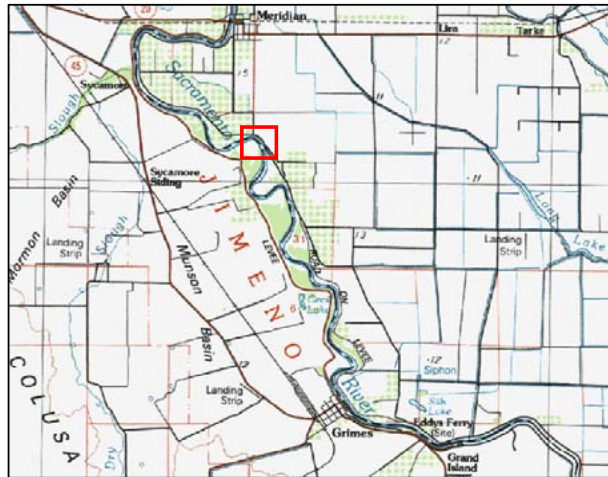
Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	2	330 ft
Location of erosion	5	toe and underwater
Bank Stability	4	vertical sections greater than half bank height
Radius of Curvature (R_c/w)	0	$R/w = 5.61$
Site Relative to Bend	3	outside of a greater than 90 degree bend
Geomorph	0	no migration possible
Vegetation Cover	2	50%
Tree Hazard	1	lone small tree
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	6.52 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	1	Farms
Human Usage	1	steep sections, occasional usage
Seepage Potential	0	no seepage expected
Tidal Fluctuation	3	3 ft of tidal flux

Erosion Hazard

56

[Calculate Erosion Hazard](#)

Sacramento River, RM 130.0L



Site Location Map



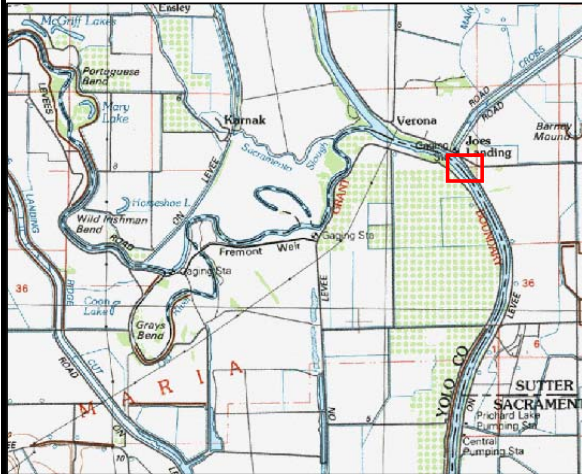
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	5	0 to 60 ft
Length of erosion	2	337 ft
Location of erosion	4	berm slope and toe
Bank Stability	0	no vertical sections or caves
Radius of Curvature (R_c/w)	4	$R/w = 1.22$
Site Relative to Bend	5	outside of a tight bend
Geomorph	2	migration possible on opposite bank
Vegetation Cover	2	50%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	2	clays and silts
Velocity (*2)	2	2.86 ft/s
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	2	small town of Meridian
Human Usage	2	seasonal
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	55	Calculate Erosion Hazard

Sacramento River, RM 78.8L



Site Location Map



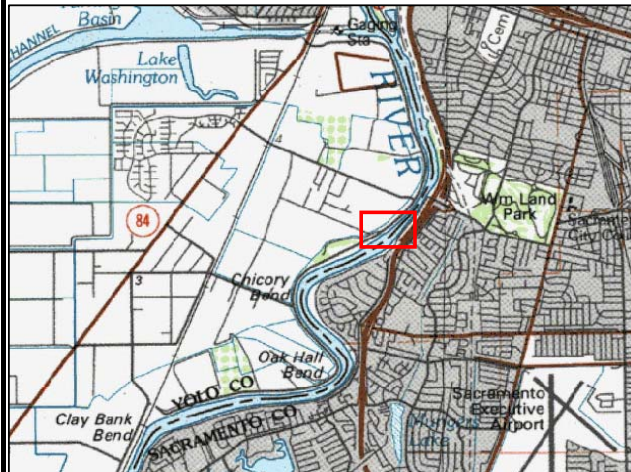
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	0	35 ft
Length of erosion	2	468 ft
Location of erosion	3	toe
Bank Stability	5	vertical sections less than half bank height and caves
Radius of Curvature (R_c/w)	0	$R/w = 6.31$
Site Relative to Bend	3	outside of a gentle bend
Geomorph	0	no migration expected
Vegetation Cover	1	60 - 70%
Tree Hazard	3	large trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.82 ft/s
Wave Action (Wind/Boat)	2	low, marina with wake restrictions
Economic Factor (*2)	5	Sacramento
Human Usage	0	rare
Seepage Potential	5	history of seepage
Tidal Fluctuation	1	1 ft of tidal flux
Erosion Hazard	55	Calculate Erosion Hazard

Sacramento River, RM 55.5L



Site Location Map



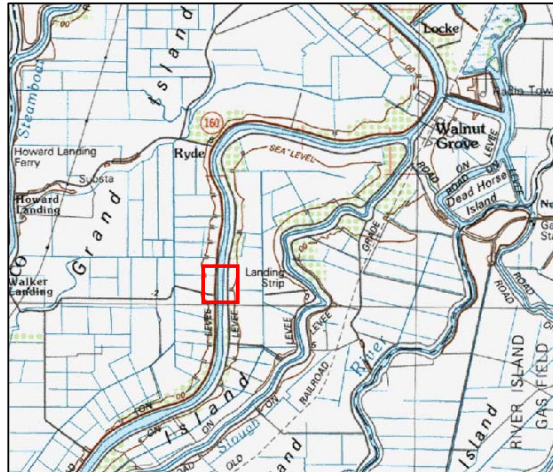
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	2	15 ft
Length of erosion	2	312 ft
Location of erosion	2	levee slope
Bank Stability	2	small vertical section
Radius of Curvature (R_c/w)	0	relatively straight
Site Relative to Bend	1	relatively straight
Geomorph	0	no migration possible
Vegetation Cover	2	40%
Tree Hazard	3	large trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.84 ft/s
Wave Action (Wind/Boat)	2	low, no wake zone
Economic Factor (*2)	5	Sacramento
Human Usage	5	paths and human debris, adjacent to hotel
Seepage Potential	0	no seepage history
Tidal Fluctuation	2	2 ft of tidal flux
Erosion Hazard	55	Calculate Erosion Hazard

Sacramento River, RM 22.7L



Site Location Map



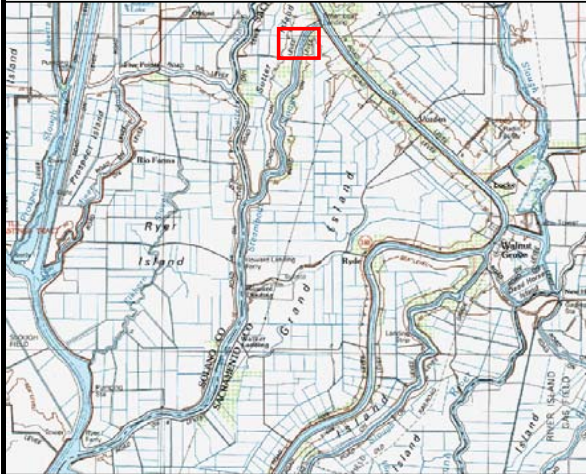
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	2	311 ft
Location of erosion	2	berm
Bank Stability	4	vertical sections greater than half bank height
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	0	90%
Tree Hazard	3	large trees, one already fallen
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.82 ft/s
Wave Action (Wind/Boat)	4	heavy winds and boating
Economic Factor (*2)	2	small town of Isleton
Human Usage	1	occassional
Seepage Potential	0	no seepage
Tidal Fluctuation	4	4 ft of tidal flux
Erosion Hazard	55	Calculate Erosion Hazard

Steamboat Slough, RM 25.8R



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	1	100 ft
Location of erosion	4	toe and lower bank
Bank Stability	2	vertical sections
Radius of Curvature (R_c/w)	2	$R/w = 3.5$
Site Relative to Bend	3	outside of slight bend
Geomorph	0	no migration expected
Vegetation Cover	1	60 - 70%
Tree Hazard	4	large trees, exposed roots
Soil Type (*2)	2	clays and silts
Velocity (*2)	3	4.87 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	1	Farms
Human Usage	3	monthly
Seepage Potential	0	no known seepage history
Tidal Fluctuation	4	roughly 4 ft of tidal influence
Erosion Hazard	55	Calculate Erosion Hazard

Georgiana Slough, RM 7.0R



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

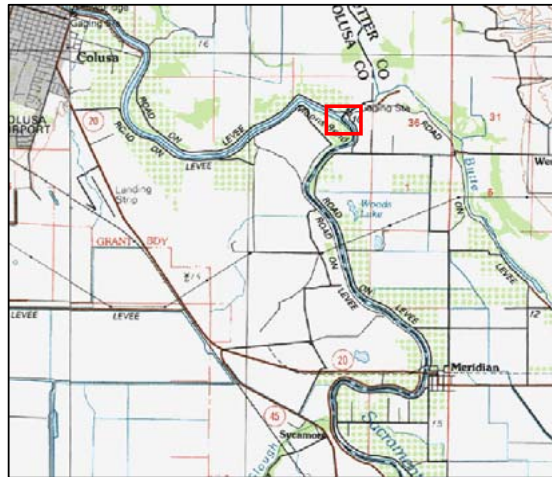
Criteria	Score	Notes
Bank Slope (*2)	4	1:1 or less
Berm Width (*2) - Estimated	3	5 ft
Length of erosion	3	673 ft
Location of erosion	4	toe and bank
Bank Stability	2	vertical sections, less than half bank height
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	2	60%
Tree Hazard	4	large trees, exposed roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.88 ft/s
Wave Action (Wind/Boat)	3	moderate wind and boat wake
Economic Factor (*2)	1	Farms
Human Usage	2	seasonal
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux

Erosion Hazard

55

[Calculate Erosion Hazard](#)

Sacramento River, RM 138.1L



Site Location Map



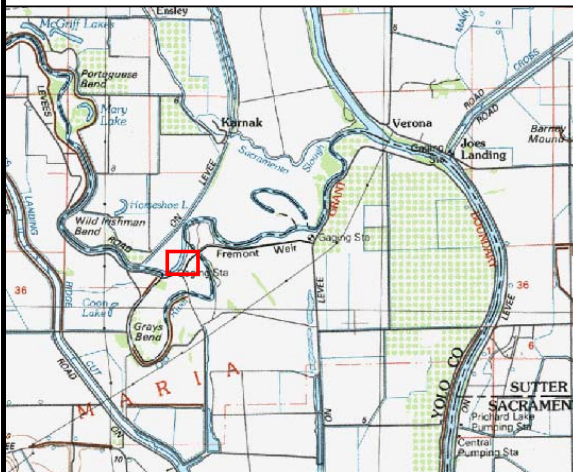
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	4	1242 ft
Location of erosion	4	toe and lower bank
Bank Stability	2	vertical section, less than half bank height
Radius of Curvature (R_c/w)	2	$R/w = 2.3$
Site Relative to Bend	3	outside of gentle bend
Geomorph	2	slight migration possible on opposite bank
Vegetation Cover	1	75%
Tree Hazard	0	no trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	2	2.58 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	2	small town of Meridian
Human Usage	3	monthly
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	54	Calculate Erosion Hazard

Sacramento River, RM 83.9R



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

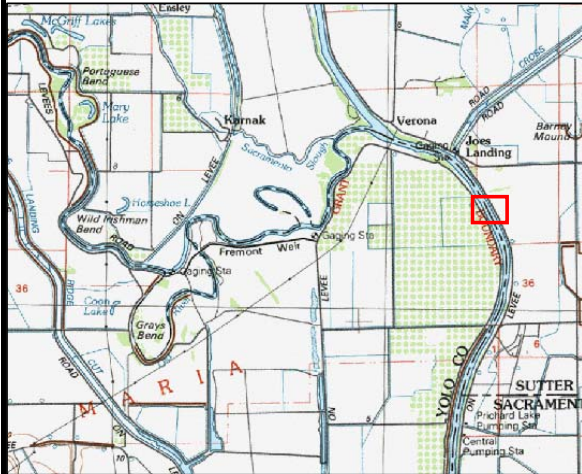
Criteria	Score	Notes
Bank Slope (*2)	5	vertical bank
Berm Width (*2) - Estimated	0	40 to 50 ft
Length of erosion	2	474 ft
Location of erosion	3	full bank
Bank Stability	5	beaver burrows and vertical bank
Radius of Curvature (R_c/w)	2	$R/w = 3.4$
Site Relative to Bend	2	just downstream of a bend
Geomorph	3	slight migration possible on erosion side
Vegetation Cover	4	10%
Tree Hazard	5	large trees with exposed roots and leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	2	2.15 ft/s
Wave Action (Wind/Boat)	3	moderate, recreation area
Economic Factor (*2)	0	Would go into the Yolo Bypass
Human Usage	3	monthly, trail but not easy to access
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence

Erosion Hazard

54

[Calculate Erosion Hazard](#)

Sacramento River, RM 78.3L



Site Location Map



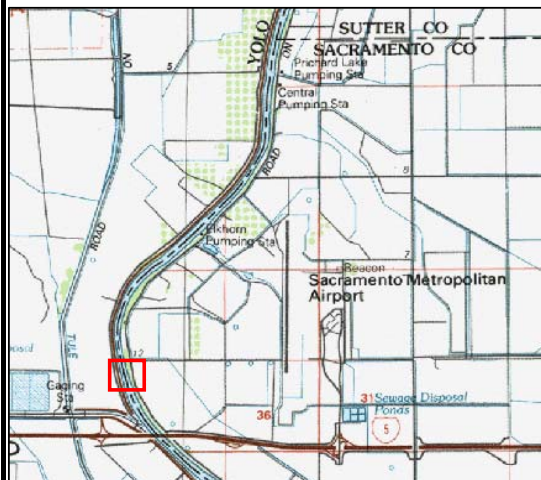
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	1	2.5:1 slope
Berm Width (*2) - Estimated	2	15 ft
Length of erosion	3	654 ft
Location of erosion	3	toe
Bank Stability	0	no vertical sections or caves
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration expected
Vegetation Cover	1	80%
Tree Hazard	3	large trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.89 ft/s
Wave Action (Wind/Boat)	2	low
Economic Factor (*2)	5	Sacramento
Human Usage	5	daily, road and lots of human debris
Seepage Potential	5	history of seepage
Tidal Fluctuation	1	1 ft of tidal flux
Erosion Hazard	54	Calculate Erosion Hazard

Sacramento River, RM 71.3R



Site Location Map



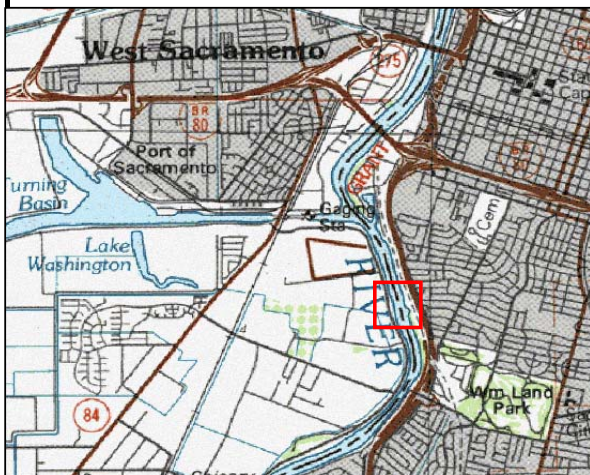
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	1	25 ft
Length of erosion	3	522 ft
Location of erosion	4	berm and toe
Bank Stability	5	vertical sections, greater than half bank height and animal burrows
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	2	50%
Tree Hazard	5	trees with exposed roots and leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.05 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	1	Farms
Human Usage	2	seasonal
Seepage Potential	0	no seepage history
Tidal Fluctuation	1	1 ft of tidal flux
Erosion Hazard	54	Calculate Erosion Hazard

Sacramento River, RM 56.7R



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

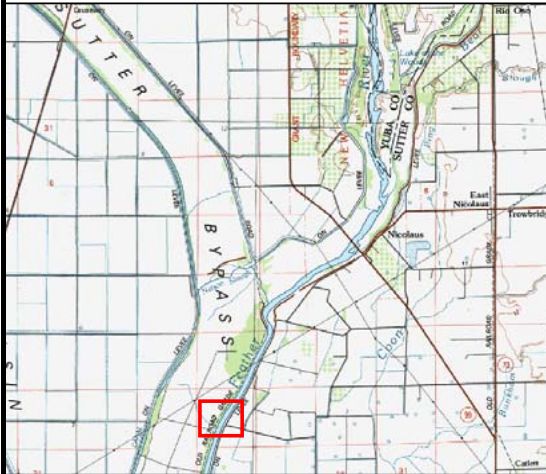
Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	0	30 to 40 ft
Length of erosion	2	400 ft
Location of erosion	4	lower bank and toe
Bank Stability	2	short vertical sections
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	2	60%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.88 ft/s
Wave Action (Wind/Boat)	4	heavy recreation area
Economic Factor (*2)	4	West Sacramento
Human Usage	5	daily
Seepage Potential	0	no known history
Tidal Fluctuation	2	2 ft of tidal flux

Erosion Hazard

54

[Calculate Erosion Hazard](#)

Feather River, RM 5.5L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope with some vertical sections
Berm Width (*2) - Estimated	1	25 to 30 ft
Length of erosion	2	328 ft
Location of erosion	3	whole bank
Bank Stability	2	vertical sections, less than half bank height
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	2	migration possible on opposite bank
Vegetation Cover	3	30 to 40 % cover
Tree Hazard	0	no trees in the erosion area
Soil Type (*2)	4	sands and silts
Velocity (*2)	5	10.6 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	2	small town of Verona and Nicolaus
Human Usage	5	close to road, human debris evident
Seepage Potential	5	seepage history
Tidal Fluctuation	0	no tidal flux

Erosion Hazard

54

Calculate Erosion Hazard

Georgiana Slough, 4.6L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

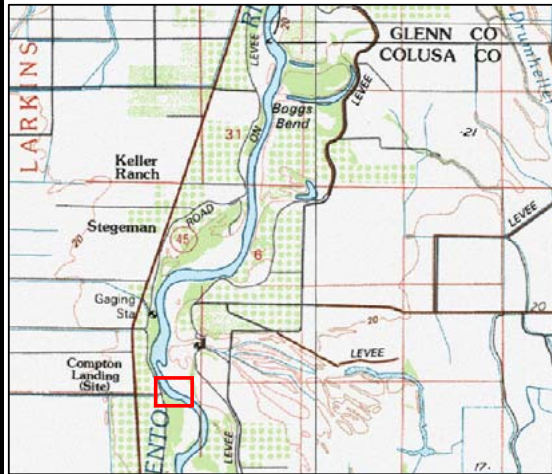
Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	4	less than 5 ft
Length of erosion	4	1138 ft
Location of erosion	3	toe
Bank Stability	4	vertical sections
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	0	85%
Tree Hazard	5	trees with exposed roots and leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.94 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	1	Farms
Human Usage	0	too steep for access
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux

Erosion Hazard

54

[Calculate Erosion Hazard](#)

Sacramento River, RM 157.7R



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

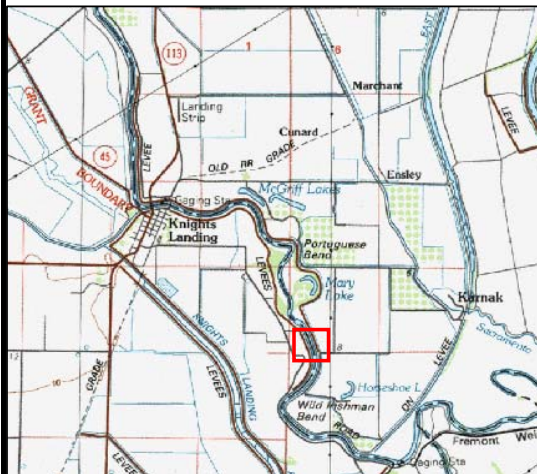
Criteria	Score	Notes
Bank Slope (*2)	4	less than 1:1 slope, near vertical
Berm Width (*2) - Estimated	0	50 ft
Length of erosion	2	488 ft
Location of erosion	4	full bank and toe
Bank Stability	5	vertical sections and some animal holes
Radius of Curvature (R_c/w)	1	$R/w = 4.4$
Site Relative to Bend	3	outside of a gentle bend
Geomorph	5	migration possible on both banks
Vegetation Cover	1	70 to 80%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	2	clays and silts
Velocity (*2)	4	5.69 ft/s
Wave Action (Wind/Boat)	2	low
Economic Factor (*2)	3	rural town of Colusa
Human Usage	0	rare
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence

Erosion Hazard

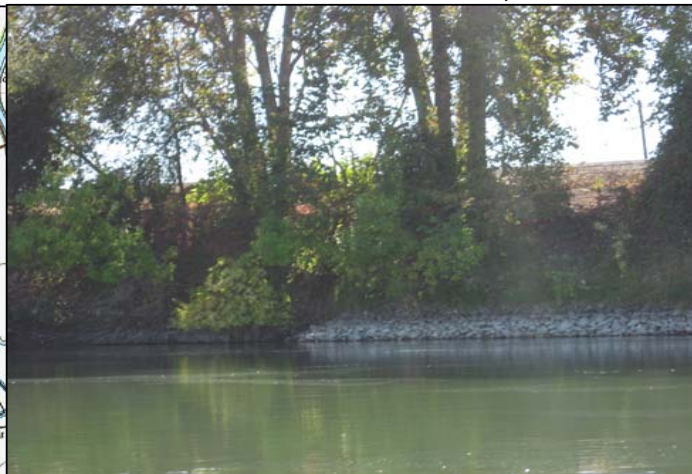
53

[Calculate Erosion Hazard](#)

Sacramento River, RM 86.9R



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

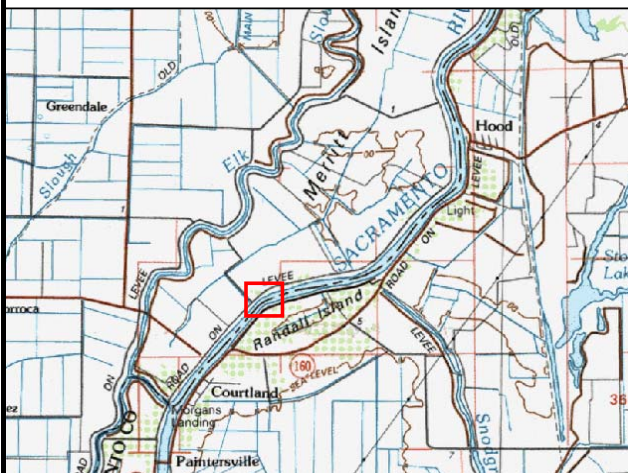
Criteria	Score	Notes
Bank Slope (*2)	4	1.5:1 slope
Berm Width (*2) - Estimated	1	25 30 ft
Length of erosion	3	576 ft
Location of erosion	5	toe and underwater
Bank Stability	2	vertical sections, less than half bank height
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration expected
Vegetation Cover	3	30%
Tree Hazard	5	large trees, roots exposed and leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.18 ft/s
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	2	small town of Knight's landing
Human Usage	4	weekly, trail to bank
Seepage Potential	0	no history of seepage
Tidal Fluctuation	0	no tidal influence

Erosion Hazard

53

[Calculate Erosion Hazard](#)

Sacramento River, RM 35.3R



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

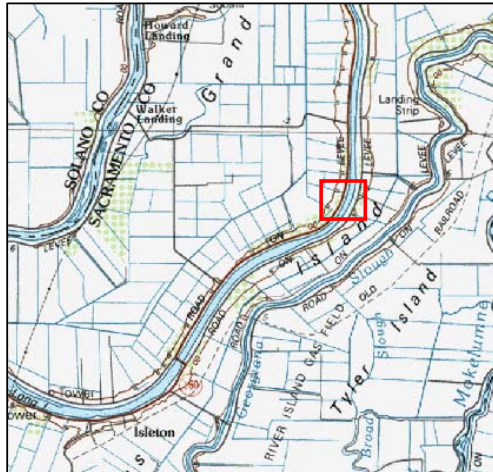
Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	2	183 ft
Location of erosion	2	full bnak
Bank Stability	0	no vertical sections or caves
Radius of Curvature (R_c/w)	0	$R/w = 5.61$
Site Relative to Bend	3	outside of a greater than 90 degree bend
Geomorph	0	no migration possible
Vegetation Cover	1	60%
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.89 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	1	Farms
Human Usage	5	daily
Seepage Potential	0	no seepage expected
Tidal Fluctuation	3	3 ft of tidal flux

Erosion Hazard

53

[Calculate Erosion Hazard](#)

Sacramento River, RM 21.5L



Site Location Map



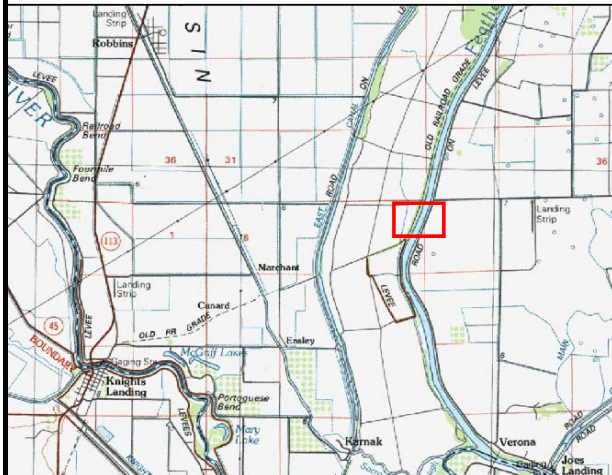
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1.5:1 slope
Berm Width (*2) - Estimated	3	5 ft of berm
Length of erosion	2	159 ft
Location of erosion	2	mid and lower bank
Bank Stability	0	no stability issues
Radius of Curvature (R_c/w)	0	$R/w = 7.89$
Site Relative to Bend	3	outside of a slight bend
Geomorph	0	no migration expected
Vegetation Cover	0	90%
Tree Hazard	5	large leaning trees, exposed roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.3 ft/s
Wave Action (Wind/Boat)	4	heavy, delta winds, recreational boats
Economic Factor (*2)	2	small town of Isleton
Human Usage	1	occassional, lots of veg
Seepage Potential	0	no seepage
Tidal Fluctuation	4	4 ft of tidal flux
Erosion Hazard	53	Calculate Erosion Hazard

Feather River, RM 3.6L



Site Location Map



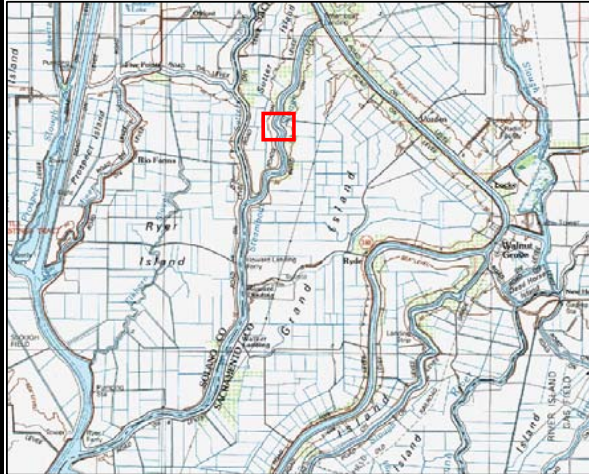
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	0	30 ft
Length of erosion	3	675 ft
Location of erosion	2	whole bank
Bank Stability	3	holes left from fallen trees, and erosion pockets
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	2	migration possible on opposite bank
Vegetation Cover	0	80 to 90%
Tree Hazard	4	large trees with visible roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	7.23 ft/s
Wave Action (Wind/Boat)	3	moderate waves
Economic Factor (*2)	2	small town of Verona
Human Usage	4	Path down, a bare spot that appears to be used by humans
Seepage Potential	5	history of seepage
Tidal Fluctuation	0	no tidal flux
Erosion Hazard	53	Calculate Erosion Hazard

Steamboat Slough, RM 23.9R



Site Location Map



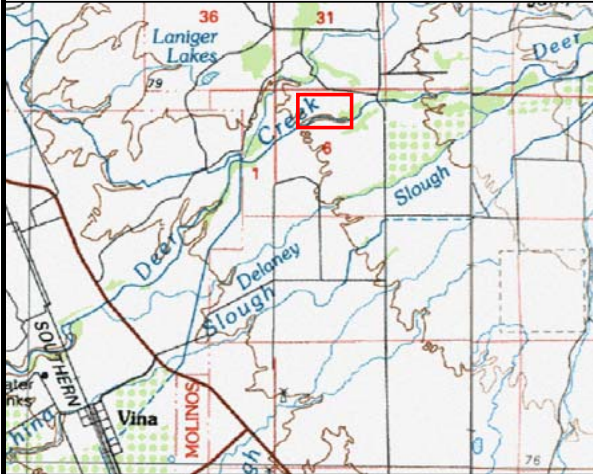
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	3	about 5 ft
Length of erosion	2	168 ft
Location of erosion	2	lower bank
Bank Stability	0	no vertical sections or caves
Radius of Curvature (R_c/w)	4	$R/w = 1.96$
Site Relative to Bend	4	outside of a 90 degree bend
Geomorph	0	no migration possible
Vegetation Cover	0	90%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	2	clays and silts
Velocity (*2)	3	4.45 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	1	Farms
Human Usage	4	weekly
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux
Erosion Hazard	53	Calculate Erosion Hazard

Deer Creek, LM 0.9 (Tehama County Unit 2 North)



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

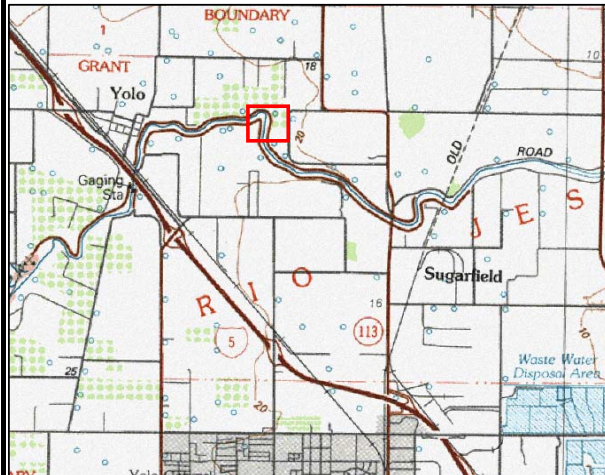
Criteria	Score	Notes
Bank Slope (*2)	5	near vertical
Berm Width (*2) - Estimated	2	10 to 15 ft
Length of erosion	2	260 ft
Location of erosion	4	toe and bank
Bank Stability	5	Vertical sections, greater than half bank height and animal holes
Radius of Curvature (R_c/w)	0	$R/w = 5.25$
Site Relative to Bend	3	outside of a gentle bend
Geomorph	0	tight levees, no migration expected
Vegetation Cover	4	minimal veg
Tree Hazard	5	large leaning trees with exposed roots
Soil Type (*2)	3	sands and cobbles
Velocity (*2)	4	~5+ ft/s
Wave Action (Wind/Boat)	0	no waves
Economic Factor (*2)	1	Farms
Human Usage	0	rare
Seepage Potential	0	no known seepage history
Tidal Fluctuation	0	no tidal fux

Erosion Hazard

53

[Calculate Erosion Hazard](#)

Cache Creek, LM 3.4L



Site Location Map



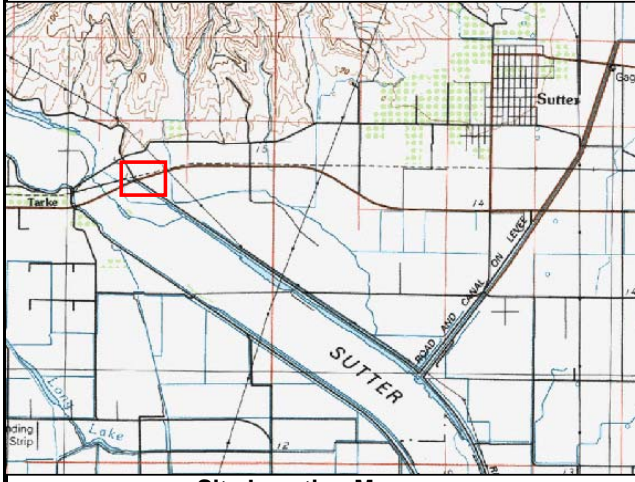
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	2	15 to 30 feet
Length of erosion	2	331 ft
Location of erosion	4	toe and upper bank
Bank Stability	5	vertical sections, less than half slope height, and caves
Radius of Curvature (R_c/w)	3	$R/w = 2.05$
Site Relative to Bend	5	outside of a less than 90 degree bend
Geomorph	0	no migration expected
Vegetation Cover	2	40%
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	6.5 ft/s
Wave Action (Wind/Boat)	0	no wind or boats
Economic Factor (*2)	2	Small town of Yolo
Human Usage	0	adjacent to private property, rare usage
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	53	Calculate Erosion Hazard

Sutter Bypass, LM 0.4 (DWR East)



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

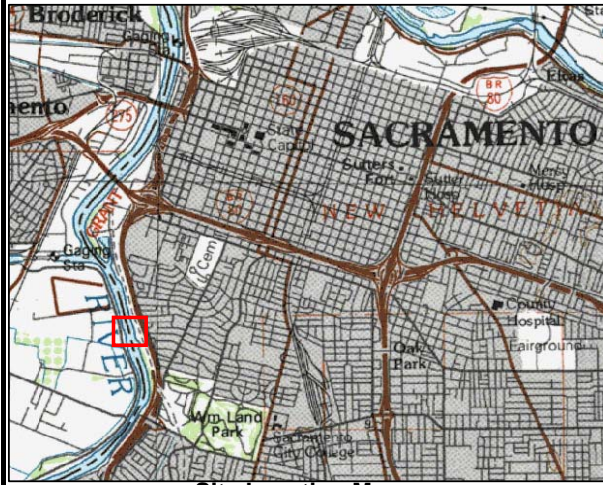
Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	3	5 to 6 ft of berm
Length of erosion	1	100 ft
Location of erosion	4	toe and lower slope
Bank Stability	2	some vertical sections, less than half bank height
Radius of Curvature (R_c/w)	0	relatively straight
Site Relative to Bend	1	relatively straight
Geomorph	0	no migration expected
Vegetation Cover	3	minimal, less than 40%
Tree Hazard	2	medium sized trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	2	3.0 ft/s
Wave Action (Wind/Boat)	1	occassional wind waves
Economic Factor (*2)	2	town of Sutter
Human Usage	4	near road, trash evident, weekly
Seepage Potential	5	known seepage issues in this area
Tidal Fluctuation	0	no tidal influence

Erosion Hazard

53

[Calculate Erosion Hazard](#)

Sacramento River, RM 56.6L



Site Location Map



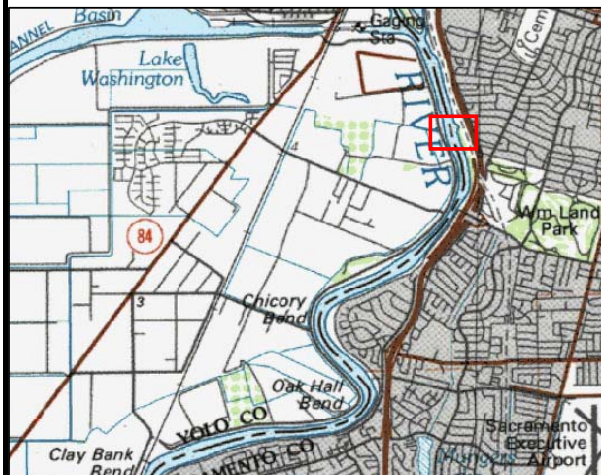
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1
Berm Width (*2) - Estimated	0	125 ft
Length of erosion	1	35 ft
Location of erosion	4	levee slope and toe
Bank Stability	2	small vertical sections
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration expected
Vegetation Cover	3	40%
Tree Hazard	3	large trees, one recently fallen
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.11 ft/s
Wave Action (Wind/Boat)	4	heavy
Economic Factor (*2)	5	Sacramento
Human Usage	0	gate on top, rare
Seepage Potential	0	no seepage
Tidal Fluctuation	2	2 ft of tidal flux
Erosion Hazard	52	Calculate Erosion Hazard

Sacramento River, RM 56.5R



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	1	25 ft
Length of erosion	2	372 ft
Location of erosion	2	berm
Bank Stability	5	caves and vertical sections
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	0	80%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	2	clays and silts
Velocity (*2)	4	5.11 ft/s
Wave Action (Wind/Boat)	4	heavy recreation area
Economic Factor (*2)	4	West Sacramento
Human Usage	4	weekly, rope swing
Seepage Potential	0	no seepage history
Tidal Fluctuation	2	2 ft of tidal flux

Erosion Hazard

52

[Calculate Erosion Hazard](#)

Georgiana Slough, RM 9.3L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	2	10 ft
Length of erosion	4	1019 ft
Location of erosion	3	whole bank
Bank Stability	2	vertical sections, less than half bank height
Radius of Curvature (R_c/w)	4	$R/w = 1.75$
Site Relative to Bend	5	outside of a sharp bend
Geomorph	0	no migration possible
Vegetation Cover	0	85%
Tree Hazard	2	medium trees
Soil Type (*2)	4	silts and sands
Velocity (*2)	1	1.07 ft/s
Wave Action (Wind/Boat)	2	low, 5 MPH
Economic Factor (*2)	1	Farms
Human Usage	2	thick vegetation, seasonal
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux

Erosion Hazard

52

[Calculate Erosion Hazard](#)

Georgiana Slough, RM 6.6L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

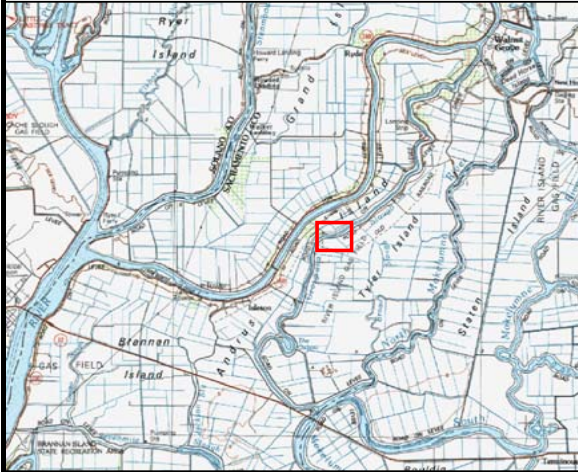
Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	2	10 ft
Length of erosion	2	348 ft
Location of erosion	2	lower bank
Bank Stability	5	caves greater than 4 ft and vertical sections
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	4	70%
Tree Hazard	1	young trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.77 ft/s
Wave Action (Wind/Boat)	3	moderate boat wake
Economic Factor (*2)	1	Farms
Human Usage	2	seasonal
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux

Erosion Hazard

52

[Calculate Erosion Hazard](#)

Georgiana Slough, RM 6.1L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

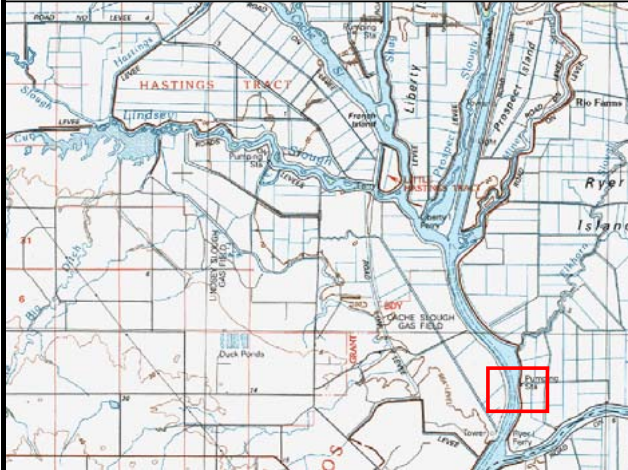
Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	2	10 ft
Length of erosion	5	1707 ft
Location of erosion	4	berm slope and toe
Bank Stability	1	caves
Radius of Curvature (R_c/w)	0	$R/w = 9.66$
Site Relative to Bend	3	outside of a gentle bend
Geomorph	0	no migration possible
Vegetation Cover	0	80 to 90%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.95 ft/s
Wave Action (Wind/Boat)	3	moderate boat wake
Economic Factor (*2)	1	Farms
Human Usage	2	seasonal
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux

Erosion Hazard

52

[Calculate Erosion Hazard](#)

Cache Slough, RM 15.9L



Site Location Map



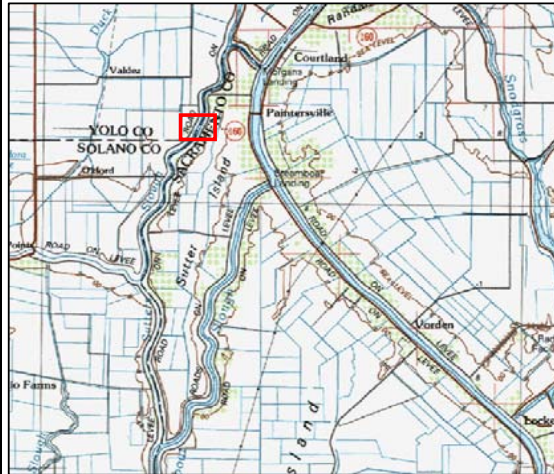
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	4	3 to 6 ft
Length of erosion	2	182 ft
Location of erosion	3	toe
Bank Stability	5	vertical sections, less than half bank height, beaver burrows
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	2	just downstream of a bend
Geomorph	0	tight levees, no migration expected
Vegetation Cover	2	about 40%
Tree Hazard	0	no trees
Soil Type (*2)	1	clays
Velocity (*2)	5	10.9 ft/s
Wave Action (Wind/Boat)	5	Heavy, cargo ships passing
Economic Factor (*2)	1	Farms
Human Usage	3	monthly
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	About 4 ft of tidal flux
Erosion Hazard	52	Calculate Erosion Hazard

Sutter Slough, RM 26.5L



Site Location Map



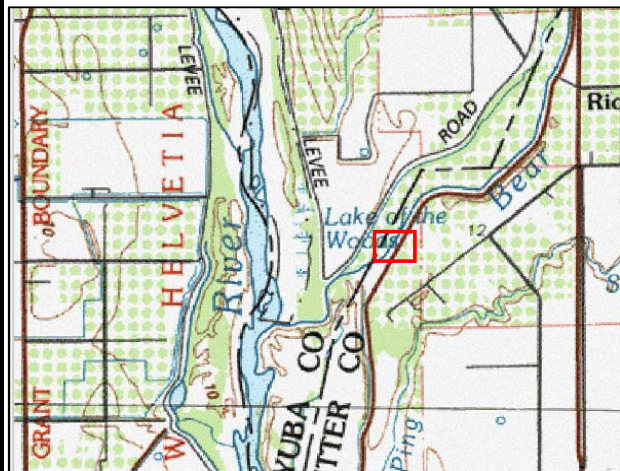
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	3	555 ft
Location of erosion	3	toe
Bank Stability	0	no vertical sections or caves
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	2	50%
Tree Hazard	5	leaning trees with exposed roots
Soil Type (*2)	2	clays and silts
Velocity (*2)	4	5.62 ft/s
Wave Action (Wind/Boat)	2	low
Economic Factor (*2)	1	Farms
Human Usage	3	monthly
Seepage Potential	0	no seepage history
Tidal Fluctuation	3	about 3 ft of tidal flux
Erosion Hazard	52	Calculate Erosion Hazard

Bear River, RM 0.8L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

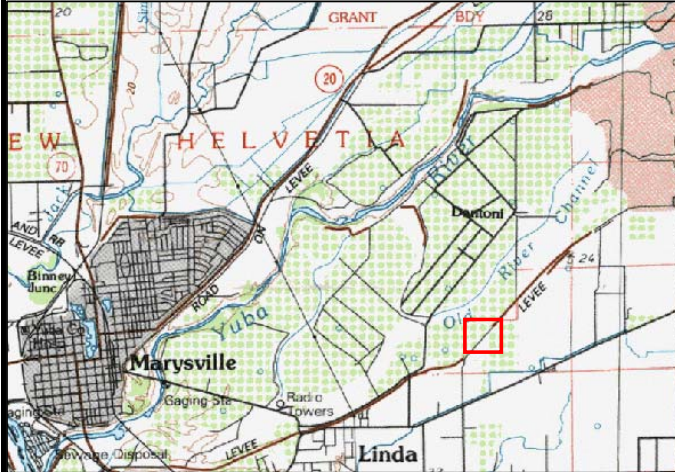
Criteria	Score	Notes
Bank Slope (*2)	5	Vertical slope
Berm Width (*2) - Estimated	2	15 to 30 ft of berm
Length of erosion	2	237 ft long
Location of erosion	5	Whole Bank
Bank Stability	5	vertical sections and beaver burrows
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	3	Outside of a bend, greater than 90 degrees
Geomorph	2	Migration possible on opposite bank
Vegetation Cover	2	About 60% cover
Tree Hazard	0	no trees
Soil Type (*2)	2	Clays and Silts
Velocity (*2)	2	2.84 ft/s
Wave Action (Wind/Boat)	1	Occassional wave
Economic Factor (*2)	2	Rural, small town of Nicolaus
Human Usage	1	Occassional usage
Seepage Potential	5	Seepage history
Tidal Fluctuation	0	no tidal influence

Erosion Hazard

52

[Calculate Erosion Hazard](#)

Yuba River, LM 2.3 (DWR MA 8 South)



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

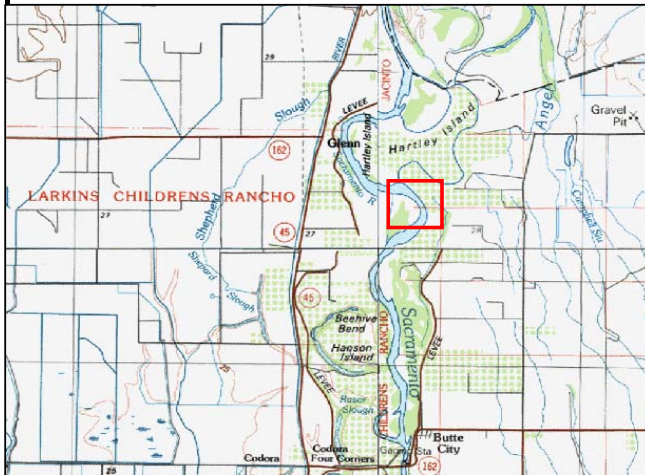
Criteria	Score	Notes
Bank Slope (*2)	5	near vertical
Berm Width (*2) - Estimated	5	no berm
Length of erosion	4	1350 ft in length
Location of erosion	4	toe and lower slope
Bank Stability	2	shallow vertical sections
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	migration not expected
Vegetation Cover	4	minimal
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	0	water does not reach the bank
Wave Action (Wind/Boat)	0	no waves
Economic Factor (*2)	3	Olivehurst and Plumas Lake, Rural
Human Usage	3	monthly usage
Seepage Potential	0	no known seepage issues
Tidal Fluctuation	0	no tidal influence

Erosion Hazard

52

[Calculate Erosion Hazard](#)

Sacramento River, RM 172.0L



Site Location Map

Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

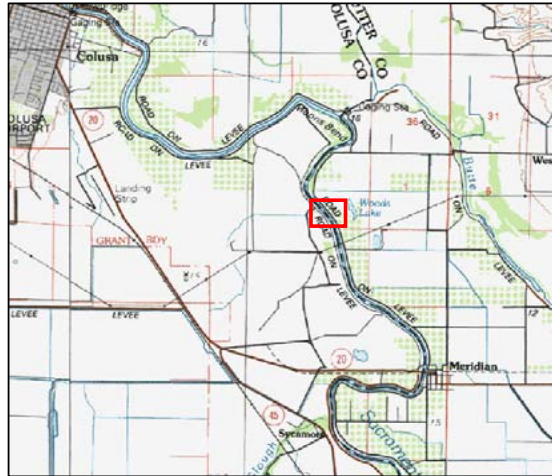
Criteria	Score	Notes
Bank Slope (*2)	5	vertical banks
Berm Width (*2) - Estimated	0	30 ft
Length of erosion	4	1050 ft
Location of erosion	4	whole bank and toe
Bank Stability	5	vertical sections and caves
Radius of Curvature (R_c/w)	2	$R/w = 3.9$
Site Relative to Bend	3	outside of a greater than 90 degree bend
Geomorph	2	migration possible on opposite bank
Vegetation Cover	3	minimal, on upper bank only, 30%
Tree Hazard	0	no trees
Soil Type (*2)	2	clays with some silts
Velocity (*2)	4	5.64 ft/s
Wave Action (Wind/Boat)	2	low wave action
Economic Factor (*2)	2	small town of Butte City
Human Usage	0	rare, too steep
Seepage Potential	0	no known seepage history
Tidal Fluctuation	0	no tidal influence

Erosion Hazard

51

[Calculate Erosion Hazard](#)

Sacramento River, RM 136.7R



Site Location Map



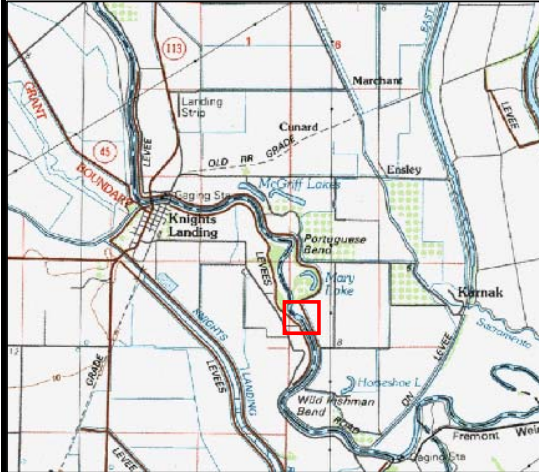
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	0	30 ft
Length of erosion	2	246 ft
Location of erosion	4	bank and toe
Bank Stability	5	vertical sections , greater than half bank height and caves
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	2	just downstream from a bend
Geomorph	0	no migration possible
Vegetation Cover	4	20%
Tree Hazard	5	trees with exposed roots and leaning
Soil Type (*2)	2	clays and silts
Velocity (*2)	4	5.17 ft/s
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	3	rural town of Colusa
Human Usage	3	monthly
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	51	Calculate Erosion Hazard

Sacramento River, RM 87.0L



Site Location Map



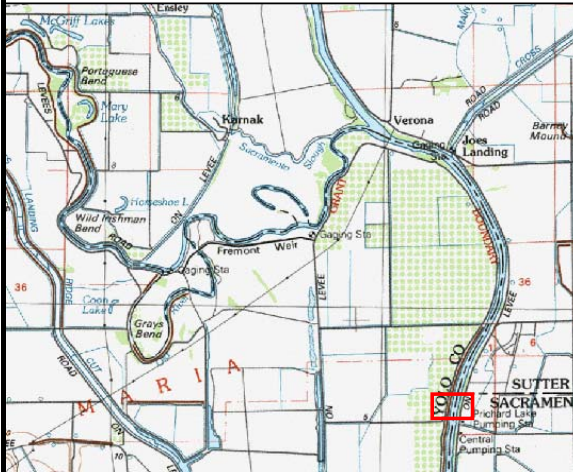
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	5	near vertical
Berm Width (*2) - Estimated	0	40 to 50 ft
Length of erosion	5	1534 ft
Location of erosion	4	full bank and toe
Bank Stability	5	vertical sections greater than half bank height, and animal holes
Radius of Curvature (R_c/w)	0	$R/w = 6.98$
Site Relative to Bend	0	inside of a bend
Geomorph	0	no migration expected
Vegetation Cover	4	10%
Tree Hazard	4	trees with exposed roots, one freshly fallen
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.18 ft/s
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	1	Farms
Human Usage	1	occassional
Seepage Potential	0	no history of seepage
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	51	Calculate Erosion Hazard

Sacramento River, RM 75.3R



Site Location Map



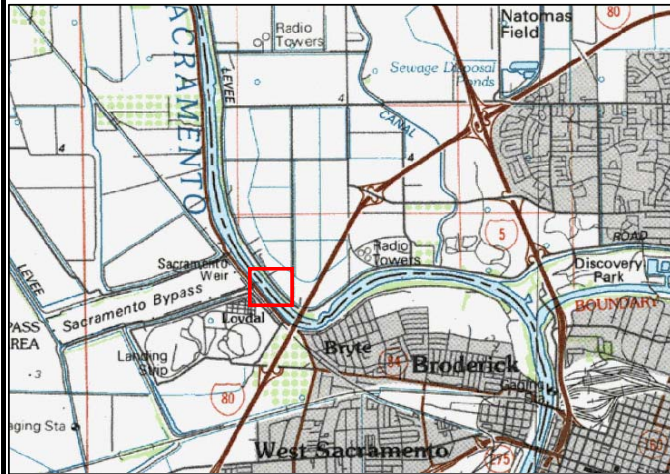
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	less than 1:1 slope
Berm Width (*2) - Estimated	0	30 to 50 ft
Length of erosion	5	2749 ft
Location of erosion	4	berm slope and toe
Bank Stability	5	vertical sections, greater than half bank height and caves
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	4	less than 20%
Tree Hazard	5	trees with exposed roots and leaning
Soil Type (*2)	2	clays and silts
Velocity (*2)	4	5.03 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	1	farms
Human Usage	1	occassional
Seepage Potential	0	no seepage history
Tidal Fluctuation	1	1 ft of tidal flux
Erosion Hazard	51	Calculate Erosion Hazard

Sacramento River, RM 63.0R



Site Location Map



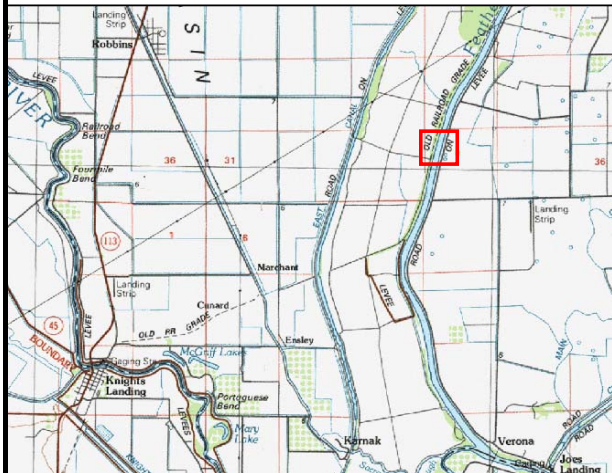
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	2	less than 20 ft
Length of erosion	1	100 ft
Location of erosion	3	toe
Bank Stability	2	vertical sections, less than half bank height
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	3	30%
Tree Hazard	5	large trees, exposed roots, some leaning
Soil Type (*2)	2	clays and silts
Velocity (*2)	2	2.87 ft/s
Wave Action (Wind/Boat)	4	marina and boat launch near, heavy recreational boating area
Economic Factor (*2)	4	West Sacramento
Human Usage	5	stairs down to bank, daily
Seepage Potential	0	no seepage history
Tidal Fluctuation	1	1 ft of tidal flux
Erosion Hazard	51	Calculate Erosion Hazard

Feather River, RM 4.9L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	0	greater than 30 ft
Length of erosion	3	909 ft
Location of erosion	1	berm
Bank Stability	0	no vertical sections or burrows
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	2	migration possible on opposite bank
Vegetation Cover	1	60 to 70% cover
Tree Hazard	4	trees with visible roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	5	8.79 ft/s
Wave Action (Wind/Boat)	3	moderate waves
Economic Factor (*2)	2	small town of Verona
Human Usage	3	monthly
Seepage Potential	5	history of seepage
Tidal Fluctuation	0	no tidal flux
Erosion Hazard	51	Calculate Erosion Hazard

Georgiana Slough, RM 8.3L



Site Location Map



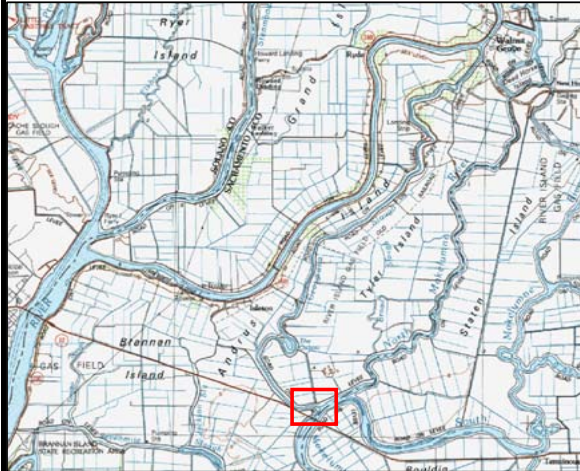
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	2	15 ft
Length of erosion	1	81 ft
Location of erosion	2	middle and lower bank
Bank Stability	4	vertical sections, greater than half bank height
Radius of Curvature (R_c/w)	2	$R/w = 3.96$
Site Relative to Bend	4	outside of a 90 degree bend
Geomorph	0	no migration possible
Vegetation Cover	1	80%
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.68 ft/s
Wave Action (Wind/Boat)	3	5 MPH zone, but windy
Economic Factor (*2)	1	Farms
Human Usage	4	adjacent to public road, debris, weekly
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux
Erosion Hazard	51	Calculate Erosion Hazard

Georgiana Slough, RM 0.3L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

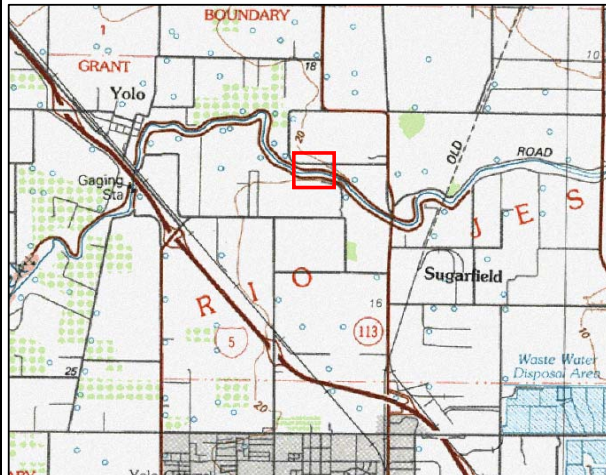
Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	4	less than 5 ft
Length of erosion	4	1225 ft
Location of erosion	4	toe and levee slope
Bank Stability	0	no vertical sections or caves
Radius of Curvature (R_c/w)	0	$R/w = 13.8$
Site Relative to Bend	3	outside of a slight bend
Geomorph	0	no migration possible
Vegetation Cover	0	about 90%
Tree Hazard	0	small trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.63 ft/s
Wave Action (Wind/Boat)	4	5 MPH zone, but heavy wind
Economic Factor (*2)	1	Farms
Human Usage	2	one path down with grass growing over it, seasonal use
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	About 4 ft of flux

Erosion Hazard

51

[Calculate Erosion Hazard](#)

Cache Creek, LM 3.9L



Site Location Map



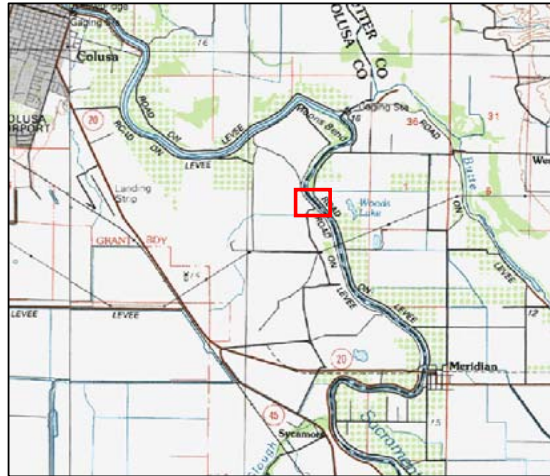
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	less than 1:1
Berm Width (*2) - Estimated	2	10 to 25 ft
Length of erosion	2	430 ft
Location of erosion	4	whole bank and toe
Bank Stability	5	vertical sections and caves
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	3	30%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	6 ft/s
Wave Action (Wind/Boat)	0	none
Economic Factor (*2)	2	small town of Yolo
Human Usage	0	rare
Seepage Potential	0	no known history
Tidal Fluctuation	0	no tidal flux
Erosion Hazard	51	Calculate Erosion Hazard

Sacramento River, RM 136.9R



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	0	30 ft
Length of erosion	2	289 ft
Location of erosion	4	whole bank and toe
Bank Stability	5	vertical sections less than half bank height and caves
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	2	just downstream from a bend
Geomorph	0	no migration possible
Vegetation Cover	4	20%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	2	clays and silts
Velocity (*2)	3	4.66 ft/s
Wave Action (Wind/Boat)	2	low
Economic Factor (*2)	3	rural town of Colusa
Human Usage	3	monthly
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	50	Calculate Erosion Hazard

Georgiana Slough, RM 4.5L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

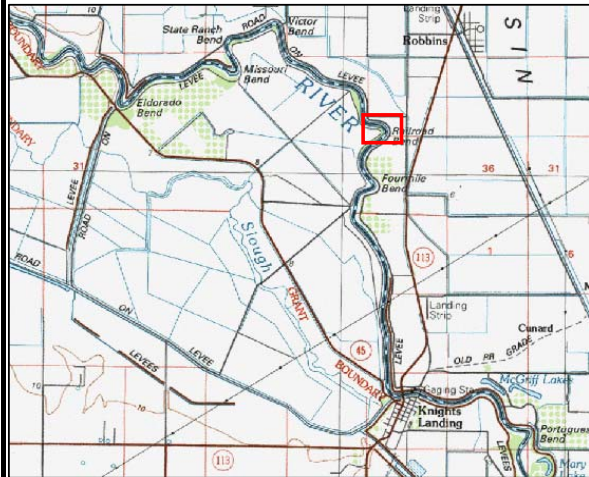
Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	4	less than 5 ft
Length of erosion	2	150 ft
Location of erosion	3	toe
Bank Stability	2	some vertical sections, less than half bank height
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	0	dense, 95%
Tree Hazard	5	trees with exposed roots and leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.01 ft/s
Wave Action (Wind/Boat)	3	moderate boat wake
Economic Factor (*2)	1	Farms
Human Usage	0	too dense with vegetation for human use
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux

Erosion Hazard

50

[Calculate Erosion Hazard](#)

Sacramento River, RM 93.7L



Site Location Map



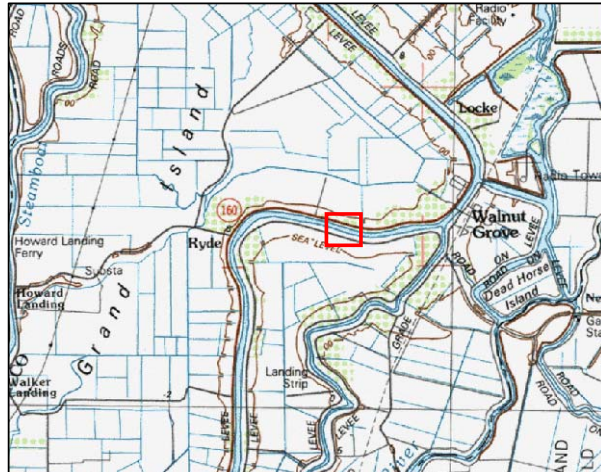
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	2	15 ft
Length of erosion	3	765 ft
Location of erosion	4	toe and bank
Bank Stability	2	vertical sections, less than half bank height
Radius of Curvature (R_c/w)	4	$R/w = 1.64$
Site Relative to Bend	5	outside of a tight bend
Geomorph	0	no migration expected
Vegetation Cover	2	60%
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.37 ft/s
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	1	Farms
Human Usage	1	daily, stairs and path down
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	49	Calculate Erosion Hazard

Sacramento River, RM 25.2L



Site Location Map



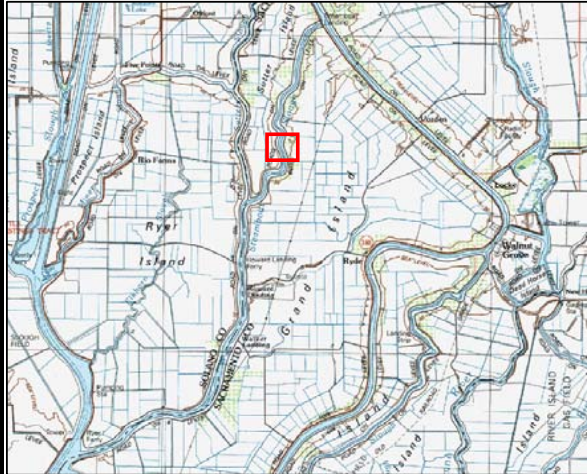
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	2	10 ft
Length of erosion	2	304 ft
Location of erosion	2	berm slope
Bank Stability	2	vertical sections, less than half bank height
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration expected
Vegetation Cover	1	80%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	2	clays and silts
Velocity (*2)	3	4.54 ft/s
Wave Action (Wind/Boat)	4	heavy
Economic Factor (*2)	2	small town of Isleton
Human Usage	3	monthly, some debris
Seepage Potential	0	no seepage
Tidal Fluctuation	4	4 ft of tidal flux
Erosion Hazard	49	Calculate Erosion Hazard

Steamboat Slough, RM 23.2L



Site Location Map



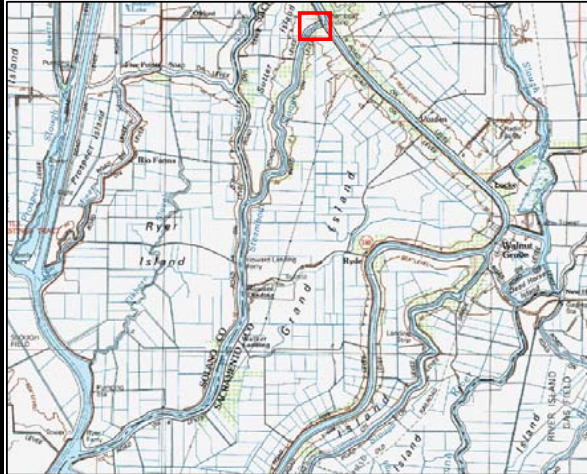
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	2	178 ft
Location of erosion	2	whole bank
Bank Stability	0	no vertical sections or caves
Radius of Curvature (R_c/w)	0	$R/w = 9.34$
Site Relative to Bend	0	inside of a bend
Geomorph	0	no migration possible
Vegetation Cover	1	60%
Tree Hazard	5	leaning trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	3	4.66 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	1	Farms
Human Usage	4	weekly
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux
Erosion Hazard	49	Calculate Erosion Hazard

Steamboat Slough, RM 26.0L



Site Location Map



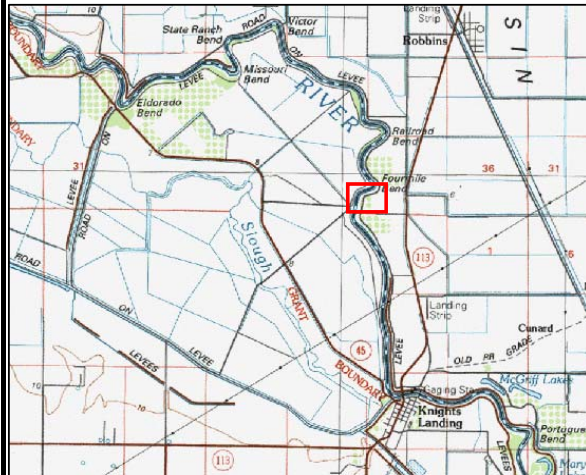
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	3	5 ft
Length of erosion	2	317 ft
Location of erosion	4	lower bank and toe
Bank Stability	1	caves from tree popouts
Radius of Curvature (R_c/w)	0	$R/w = 6.72$
Site Relative to Bend	0	inside of a bend
Geomorph	0	no migration possible
Vegetation Cover	3	40%
Tree Hazard	5	large trees, exposed roots and leaning
Soil Type (*2)	2	clays and silts
Velocity (*2)	3	4.76 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	1	Farms
Human Usage	3	monthly
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux
Erosion Hazard	49	Calculate Erosion Hazard

Sacramento River, RM 92.8L



Site Location Map



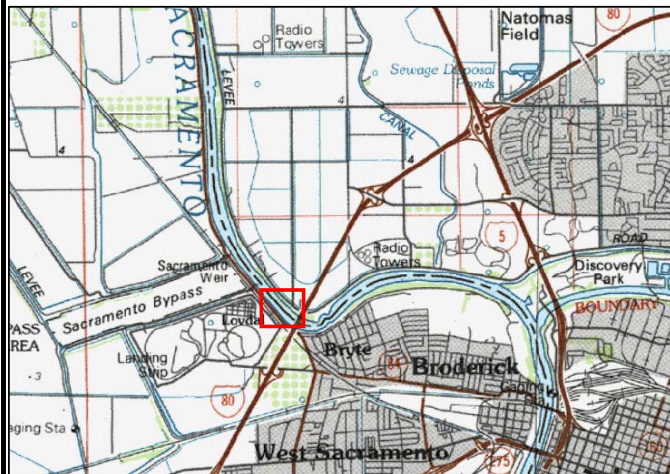
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	5	0 to 15 ft
Length of erosion	4	1106 ft
Location of erosion	3	toe
Bank Stability	0	short vertical sections
Radius of Curvature (R_c/w)	3	$R/w = 2.22$
Site Relative to Bend	2	just downstream of a bend
Geomorph	0	no migration expected
Vegetation Cover	1	60%
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.32 ft/s
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	1	Farms
Human Usage	3	monthly
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	48	Calculate Erosion Hazard

Sacramento River, RM 62.9R



Site Location Map



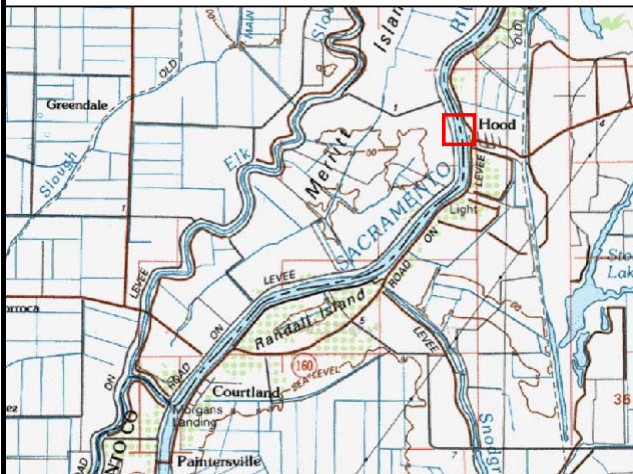
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	2	less than 20 ft
Length of erosion	2	178 ft
Location of erosion	3	toe
Bank Stability	2	vertical sections, less than halfbank height
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	1	80%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	2	clays and silts
Velocity (*2)	3	3.08 ft/s
Wave Action (Wind/Boat)	4	marina and boat launch near, heavy recreational boating area
Economic Factor (*2)	4	West Sacramento
Human Usage	2	heavy veg, seasonal
Seepage Potential	0	no seepage history
Tidal Fluctuation	1	1 ft of tidal flux
Erosion Hazard	48	Calculate Erosion Hazard

Sacramento River, RM 38.5R



Site Location Map



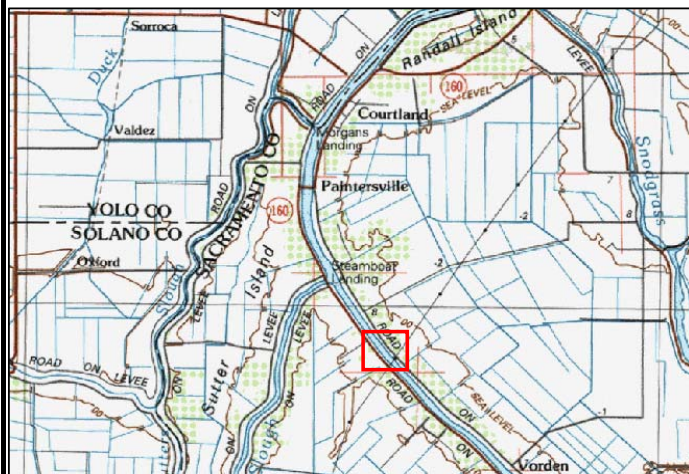
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	4	less than 5 ft
Length of erosion	2	360 ft
Location of erosion	4	lower bank and toe
Bank Stability	2	vertical sections, less than half bank slope
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration expected
Vegetation Cover	2	40-50%
Tree Hazard	0	no trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	4	5.46 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	1	Farms
Human Usage	3	monthly
Seepage Potential	0	no seepage history
Tidal Fluctuation	3	3 ft of tidal flux
Erosion Hazard	48	Calculate Erosion Hazard

Sacramento River, RM 31.6R



Site Location Map



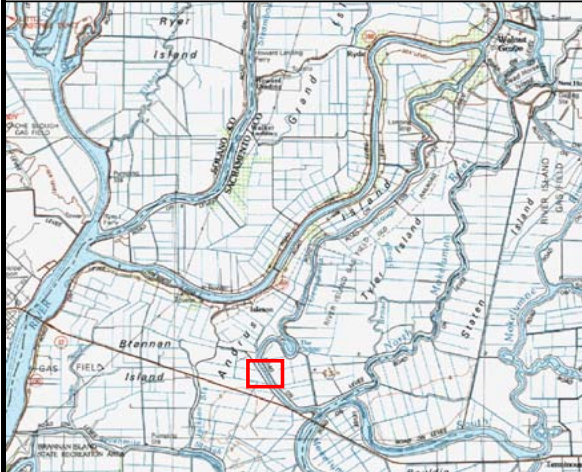
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	2	442 ft
Location of erosion	1	levee slope
Bank Stability	0	no vertical sections or caves
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	1	70%
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.23 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	1	Farms
Human Usage	3	adjacent to road but no paths, monthly
Seepage Potential	0	no seepage history
Tidal Fluctuation	3	3 ft of tidal flux
Erosion Hazard	48	Calculate Erosion Hazard

Georgiana Slough, RM 1.7L



Site Location Map



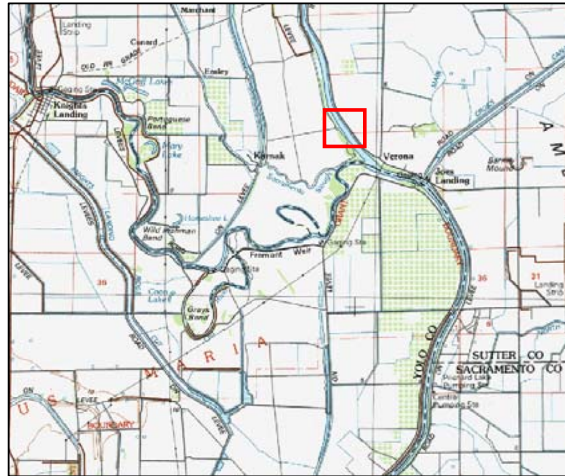
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	4	less than 5 ft
Length of erosion	4	1365 ft
Location of erosion	3	toe
Bank Stability	3	beaver burrows, greater than 4 ft
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	0	95%
Tree Hazard	2	medium trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.05 ft/s
Wave Action (Wind/Boat)	3	moderate boat wake
Economic Factor (*2)	1	Farms
Human Usage	0	Vegetation too dense for human access
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux
Erosion Hazard	48	Calculate Erosion Hazard

Feather River, RM 0.6L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	1	2.5:1 slope
Berm Width (*2) - Estimated	2	15 ft
Length of erosion	2	163 ft
Location of erosion	3	toe
Bank Stability	0	no vertical sections or caves/burrows
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	2	migration possible on opposite bank
Vegetation Cover	1	about 60 to 70%
Tree Hazard	4	large trees with visible roots
Soil Type (*2)	3	Sands
Velocity (*2)	3	4.8 ft/s
Wave Action (Wind/Boat)	3	Moderate wave action
Economic Factor (*2)	2	near the town of Verona
Human Usage	5	multiple paths seen down to river, daily usage
Seepage Potential	5	seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	48	Calculate Erosion Hazard

Willow Slough, LM 6.9 (DWR Unit 2 South)



Site Location Map



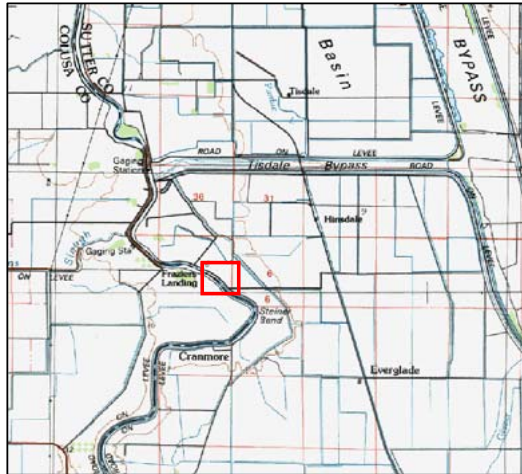
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	3	700 ft
Location of erosion	2	lower levee slope
Bank Stability	2	vertical sections, less than half bank height
Radius of Curvature (R_c/w)	3	$R/w = 2.27$
Site Relative to Bend	4	outside of a 90 degree bend
Geomorph	0	no migration expected
Vegetation Cover	3	poorly seeded grass
Tree Hazard	0	no trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	0	0.2 ft/s
Wave Action (Wind/Boat)	3	moderate wave action
Economic Factor (*2)	4	City of Davis
Human Usage	2	seasonal for duck hunting
Seepage Potential	0	no known seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	48	Calculate Erosion Hazard

Sacramento River, RM 116.5L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	2	10 ft
Length of erosion	5	2364 ft
Location of erosion	4	berm and toe
Bank Stability	5	vertical sections, full bank height, lots of beaver holes
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	2	60%
Tree Hazard	0	no trees
Soil Type (*2)	4	sand and silts
Velocity (*2)	3	4.0 ft/s
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	1	Farms
Human Usage	2	seasonal
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	47	Calculate Erosion Hazard

Sacramento River, RM 114.5R



Site Location Map



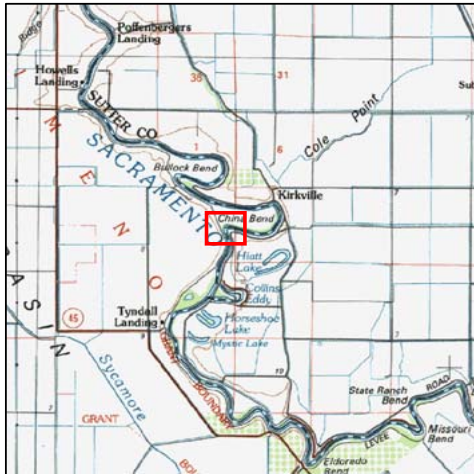
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	0	30 ft
Length of erosion	2	188 ft
Location of erosion	4	bank and toe
Bank Stability	4	vertical sections, greater than half bank height
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	4	10%
Tree Hazard	5	large trees with exposed roots, some leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.3 ft/s
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	1	Farms
Human Usage	1	occassional
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	47	Calculate Erosion Hazard

Sacramento River, RM 103.4L



Site Location Map



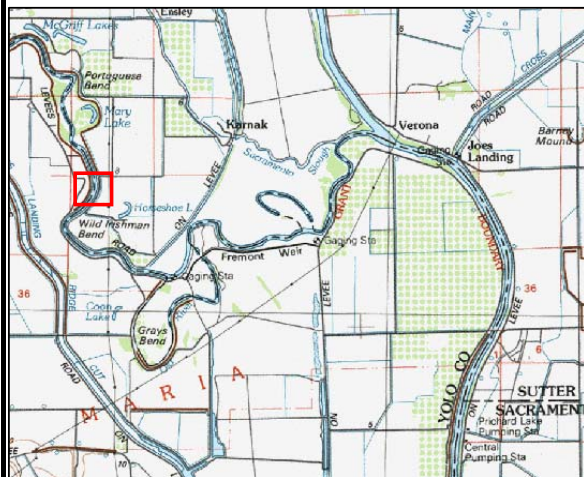
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 to 1.5:1 slopes
Berm Width (*2) - Estimated	1	25 ft
Length of erosion	1	85 ft
Location of erosion	4	full bnak and toe
Bank Stability	2	vertical sections, full bank height
Radius of Curvature (R_c/w)	4	$R/w = 1.09$
Site Relative to Bend	0	inside of a bend
Geomorph	2	migration possible on opposite bank
Vegetation Cover	3	25%
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	3.52 ft/s, plus eddy
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	1	Farms
Human Usage	1	occassional
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	47	Calculate Erosion Hazard

Sacramento River, RM 86.5R



Site Location Map



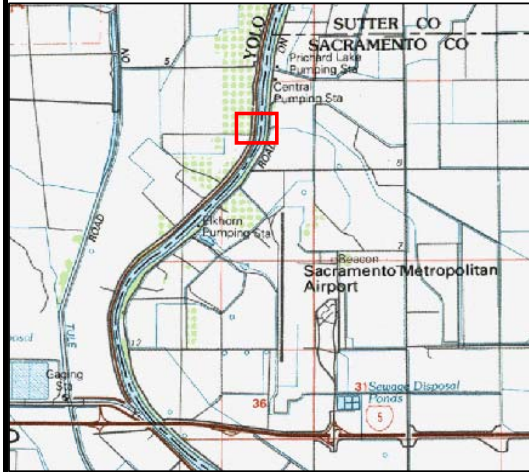
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	3	8 to 10 ft
Length of erosion	2	110 ft
Location of erosion	2	full bank
Bank Stability	2	vertical sections, less than half bank height
Radius of Curvature (R_c/w)	0	$R/w = 5.24$
Site Relative to Bend	0	inside of a bend
Geomorph	0	no migration possible
Vegetation Cover	3	30%
Tree Hazard	3	large trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.41 ft/s
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	2	small town of Knight's Landing
Human Usage	5	campground adjacent
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	47	Calculate Erosion Hazard

Sacramento River, RM 74.4R



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

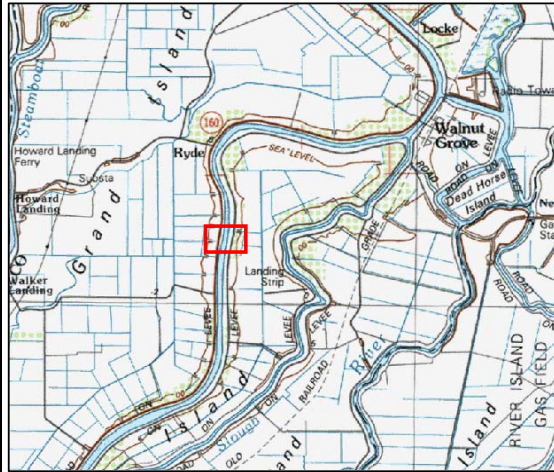
Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 or less
Berm Width (*2) - Estimated	1	25 to 50 ft
Length of erosion	4	1336 ft
Location of erosion	4	toe and bank
Bank Stability	3	caves greater than 4 ft
Radius of Curvature (R_c/w)	0	$R/w = 7.7$
Site Relative to Bend	0	inside of a bend
Geomorph	0	no migration possible
Vegetation Cover	4	less than 20%
Tree Hazard	5	trees with exposed roots and leaning
Soil Type (*2)	2	clays and silts
Velocity (*2)	4	5.74 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	1	farms
Human Usage	1	occassional
Seepage Potential	0	no seepage history
Tidal Fluctuation	1	1 ft of tidal flux

Erosion Hazard

47

[Calculate Erosion Hazard](#)

Sacramento River, RM 23.3L



Site Location Map



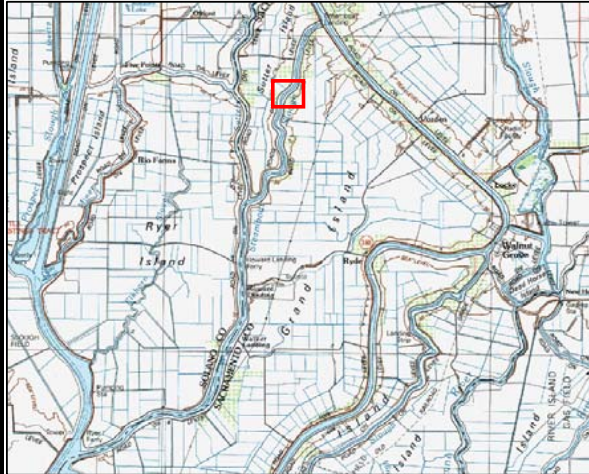
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	2:1 slope
Berm Width (*2) - Estimated	0	30 to 50 ft
Length of erosion	2	256 ft
Location of erosion	4	berm and toe
Bank Stability	2	short vertical sections
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	0	80 - 90%
Tree Hazard	4	large trees, exposed roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.16 ft/s
Wave Action (Wind/Boat)	4	heavy wind and boats
Economic Factor (*2)	2	small town of Isleton
Human Usage	2	seasonal
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux
Erosion Hazard	47	Calculate Erosion Hazard

Steamboat Slough, RM 24.7R



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	3	5 ft
Length of erosion	3	866 ft
Location of erosion	2	full bank
Bank Stability	2	some vertical sections
Radius of Curvature (R_c/w)	1	$R/w = 4.55$
Site Relative to Bend	0	inside of a bend
Geomorph	0	no migration possible
Vegetation Cover	1	75%
Tree Hazard	4	trees with exposed roots
Soil Type (*2)	2	clays and silts
Velocity (*2)	3	4.67 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	1	Farms
Human Usage	1	occassional
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux
Erosion Hazard	47	Calculate Erosion Hazard

Georgiana Slough, RM 6.4L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	2	10 ft
Length of erosion	2	405 ft
Location of erosion	3	toe
Bank Stability	1	caves, small
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	1	70%
Tree Hazard	4	large trees and exposed roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.78 ft/s
Wave Action (Wind/Boat)	3	moderate boat and wind wake
Economic Factor (*2)	1	Farms
Human Usage	2	seasonal
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux

Erosion Hazard

47

[Calculate Erosion Hazard](#)

Georgiana Slough, RM 3.6L



Site Location Map



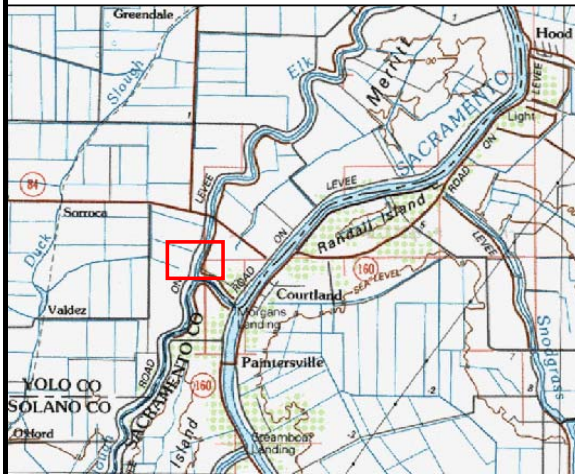
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	4	less than 5 ft of berm
Length of erosion	4	1165 ft
Location of erosion	2	levee slope
Bank Stability	3	beaver burrow at toe, greater than 4 ft
Radius of Curvature (R_c/w)	0	$R/w = 6.59$
Site Relative to Bend	0	inside of a bend
Geomorph	0	no migration possible
Vegetation Cover	0	90% cover
Tree Hazard	2	medium trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.64 ft/s
Wave Action (Wind/Boat)	3	moderate boat wake
Economic Factor (*2)	1	Farms
Human Usage	1	occassional
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	about 4 ft of tidal flux
Erosion Hazard	47	Calculate Erosion Hazard

Elk Slough, RM 0.2



Site Location Map



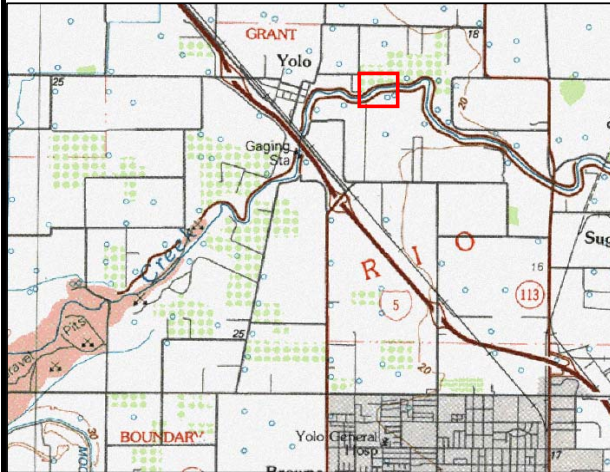
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	5	entire reach is vulnerable
Location of erosion	1	levee slope
Bank Stability	2	vertical sections, less than half bank height
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	tight levees, no migration expected
Vegetation Cover	0	dense, 80 to 90%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	1	clays
Velocity (*2)	2	3 ft/s
Wave Action (Wind/Boat)	2	low, only boatable during high flows
Economic Factor (*2)	1	Farms
Human Usage	3	near highway, monthly
Seepage Potential	0	no seepage history
Tidal Fluctuation	3	3 ft of tidal flux
Erosion Hazard	47	Calculate Erosion Hazard

Cache Creek, LM 2.8L



Site Location Map



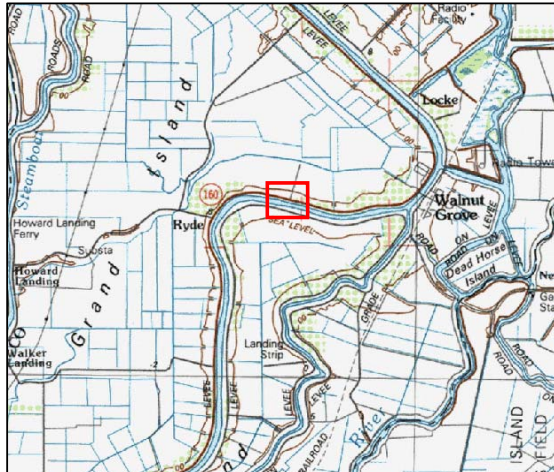
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 or less
Berm Width (*2) - Estimated	2	15 to 30 ft
Length of erosion	2	209 ft
Location of erosion	4	toe and upper bank slope
Bank Stability	4	vertical sections greater than half slope height
Radius of Curvature (R_c/w)	0	$R/w = 7.32$
Site Relative to Bend	3	outside of gentle bend
Geomorph	0	no migration expected
Vegetation Cover	2	about 50%
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.98 ft/s
Wave Action (Wind/Boat)	0	no wind or boat effects
Economic Factor (*2)	2	small town of Yolo
Human Usage	0	private property adjacent, rare usage
Seepage Potential	0	no known history of seepage
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	47	Calculate Erosion Hazard

Sacramento River, RM 24.8L



Site Location Map



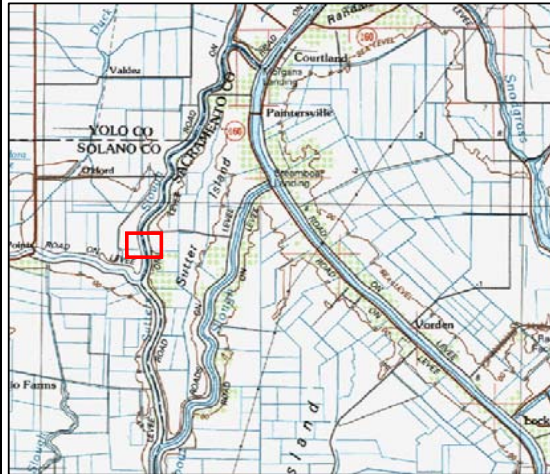
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	2	10 ft
Length of erosion	3	781 ft
Location of erosion	2	berm slope
Bank Stability	0	no vertical sections or caves
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	0	90%
Tree Hazard	3	large trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.5 ft/s
Wave Action (Wind/Boat)	4	heavy wind and waves
Economic Factor (*2)	2	small town of Isleton
Human Usage	3	monthly
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux
Erosion Hazard	46	Calculate Erosion Hazard

Sutter Slough, RM 24.7R



Site Location Map



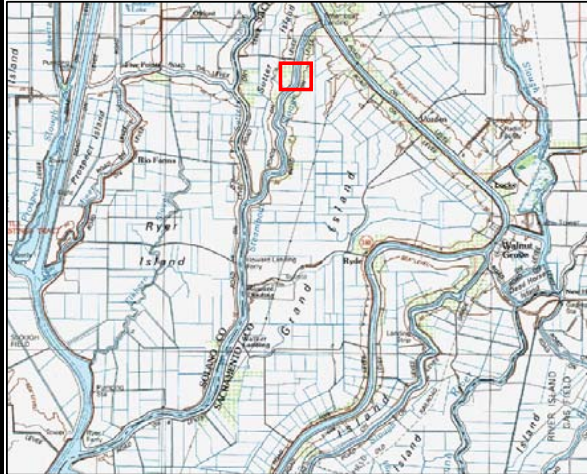
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	3	5 ft
Length of erosion	5	1723 ft
Location of erosion	2	lower bank
Bank Stability	2	vertical sections, half bank height
Radius of Curvature (R_c/w)	0	$R/w = 5.33$
Site Relative to Bend	3	outside of a gentle bend
Geomorph	0	no migration possible
Vegetation Cover	0	80%
Tree Hazard	4	small to medium trees, exposed roots
Soil Type (*2)	2	clays and silts
Velocity (*2)	3	4.73 ft/s
Wave Action (Wind/Boat)	2	low
Economic Factor (*2)	1	Farms
Human Usage	3	monthly
Seepage Potential	0	no seepage history
Tidal Fluctuation	3	about 3 ft of tidal flux
Erosion Hazard	46	Calculate Erosion Hazard

Steamboat Slough, RM 25.0L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	3	5 ft
Length of erosion	2	250 ft
Location of erosion	2	lower bank
Bank Stability	1	caves from tree popouts
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	2	60%
Tree Hazard	5	large trees, exposed roots and leaning
Soil Type (*2)	2	clays and silts
Velocity (*2)	3	4.48 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	1	Farms
Human Usage	2	seasonal
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux
Erosion Hazard	46	Calculate Erosion Hazard

Georgiana Slough, RM 6.8L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	2	15 ft
Length of erosion	4	1093 ft
Location of erosion	1	levee slope
Bank Stability	2	short vertical sections
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	0	95%
Tree Hazard	3	large trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.77 ft/s
Wave Action (Wind/Boat)	3	moderate wind
Economic Factor (*2)	1	Farms
Human Usage	2	seasonal
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux
Erosion Hazard	46	Calculate Erosion Hazard

Georgiana Slough, RM 3.7L (b)



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	4	less than 5 ft
Length of erosion	2	480 ft
Location of erosion	3	toe
Bank Stability	1	some erosion pockets
Radius of Curvature (R_c/w)	0	$R/w = 6.59$
Site Relative to Bend	0	inside of a bend
Geomorph	2	cutoff potential on opposite bank
Vegetation Cover	1	70% cover
Tree Hazard	1	young trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.04 ft/s
Wave Action (Wind/Boat)	3	moderate boat wake
Economic Factor (*2)	1	Farms
Human Usage	1	adjacent to private property, occassional
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux
Erosion Hazard	46	Calculate Erosion Hazard

Georgiana Slough, RM 4L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

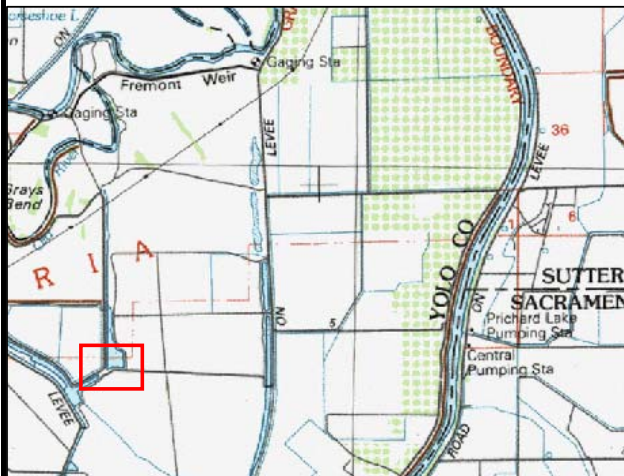
Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	4	less than 5 ft
Length of erosion	2	480 ft
Location of erosion	0	levee
Bank Stability	0	no vertical sections or beaver burrows
Radius of Curvature (R_c/w)	3	$R/w = 2.22$
Site Relative to Bend	0	inside of a bend
Geomorph	0	no migration possible
Vegetation Cover	1	about 70 to 80 %
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.76 ft/s
Wave Action (Wind/Boat)	3	moderate boat wake
Economic Factor (*2)	1	Farms
Human Usage	1	occassional
Seepage Potential	0	no history of seepage
Tidal Fluctuation	4	4 ft of tidal flux

Erosion Hazard

46

[Calculate Erosion Hazard](#)

Yolo Bypass, LM 2.6 (DWR Unit 1 West)



Site Location Map



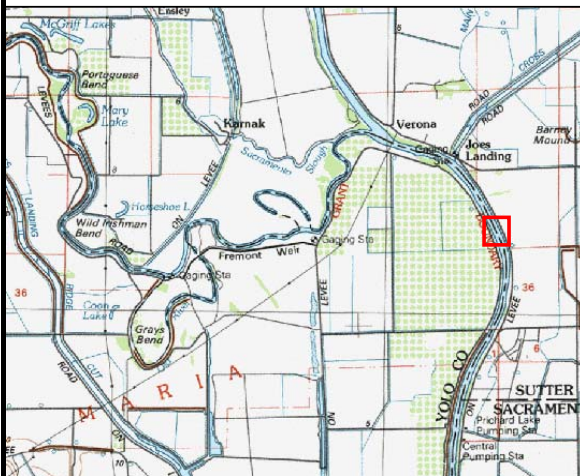
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	3	825 ft of length
Location of erosion	4	toe and lower slope
Bank Stability	4	vertical sections, about half bank height
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration expected
Vegetation Cover	2	medium cover
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	1	1.5 ft/s
Wave Action (Wind/Boat)	3	moderate wind waves
Economic Factor (*2)	2	town of Knights landing
Human Usage	1	occassional
Seepage Potential	0	no known seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	46	Calculate Erosion Hazard

Sacramento River, RM 77.7R



Site Location Map



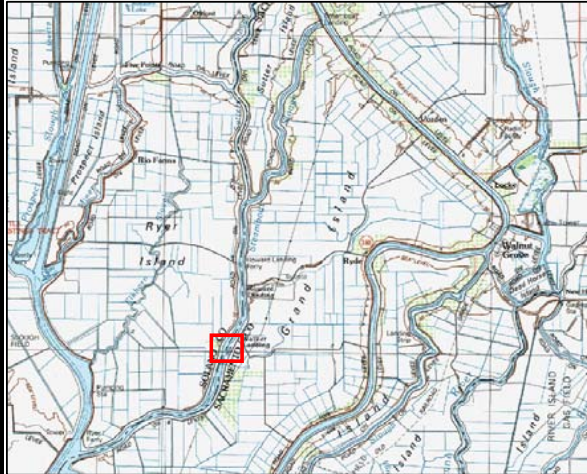
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	1	25 to 30 ft
Length of erosion	1	156 ft
Location of erosion	4	full bank and toe
Bank Stability	5	caves and some vertical sections
Radius of Curvature (R_c/w)	0	$R/w = 7.52$
Site Relative to Bend	0	inside of bend
Geomorph	0	no migration expected
Vegetation Cover	2	30 to 40%
Tree Hazard	5	large trees with exposed roots and leaning
Soil Type (*2)	2	clays and silts
Velocity (*2)	5	5.08 ft/s plus eddy off adjacent rock
Wave Action (Wind/Boat)	2	low
Economic Factor (*2)	1	Farms
Human Usage	1	occassional
Seepage Potential	0	no history of seepage
Tidal Fluctuation	1	1 ft of tidal flux
Erosion Hazard	45	Calculate Erosion Hazard

Steamboat Slough, RM 18.8R



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	2	361 ft
Location of erosion	1	levee slope
Bank Stability	0	no vertical sections or caves
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	0	90%
Tree Hazard	1	young trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	3	3.72 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	1	Farms
Human Usage	3	monthly
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux
Erosion Hazard	45	Calculate Erosion Hazard

Georgiana Slough, RM 4.3L



Site Location Map



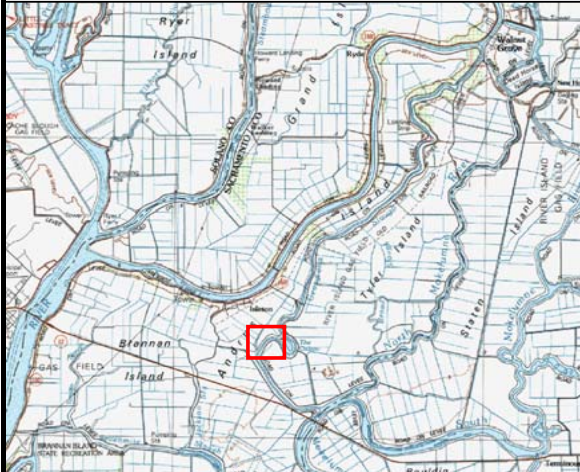
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	4	less than 5 ft of berm
Length of erosion	3	948 ft
Location of erosion	3	toe
Bank Stability	0	no vertical sections or beaver burrows
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	0	90%
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.02 ft/s
Wave Action (Wind/Boat)	3	moderate boat wake
Economic Factor (*2)	1	Farms
Human Usage	1	occassional
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux
Erosion Hazard	45	Calculate Erosion Hazard

Georgiana Slough, RM 2.5L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

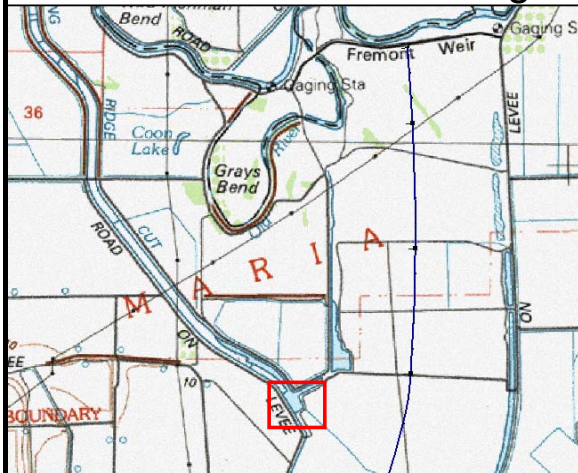
Criteria	Score	Notes
Bank Slope (*2)	1	2.5:1 slope
Berm Width (*2) - Estimated	4	less than 5 ft
Length of erosion	2	353 ft
Location of erosion	3	toe
Bank Stability	2	some vertical sections, less than half the slope height
Radius of Curvature (R_c/w)	2	$R/w = 3.8$
Site Relative to Bend	0	inside of a bend
Geomorph	2	cutoff possible on opposite bank
Vegetation Cover	0	90%
Tree Hazard	0	small trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.99 ft/s
Wave Action (Wind/Boat)	3	moderate boat wake
Economic Factor (*2)	1	Farms
Human Usage	1	occassional
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux

Erosion Hazard

45

[Calculate Erosion Hazard](#)

Knights Landing Ridge Cut, LM 0.2 (KLRD Unit 1 West)



Site Location Map



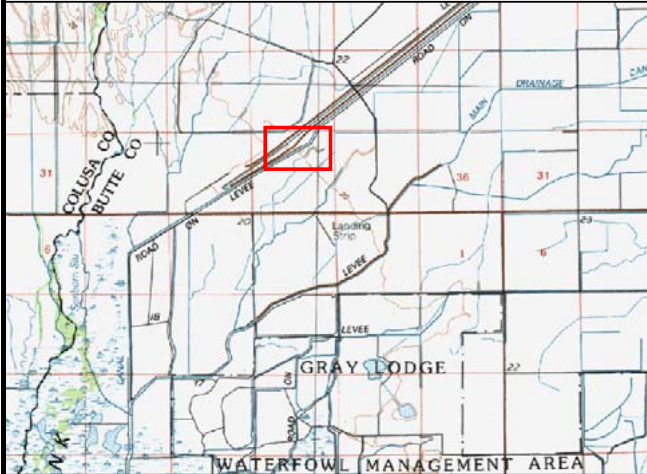
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	4	1400 ft
Location of erosion	4	toe and lower slope
Bank Stability	4	vertical sections, about half bank height
Radius of Curvature (R_c/w)	0	relatively straight
Site Relative to Bend	1	relatively straight
Geomorph	1	migration possible into the Yolo Bypass, but unlikely
Vegetation Cover	3	40% or slightly more, likely burned annually
Tree Hazard	0	no trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	0	0.06 ft/s
Wave Action (Wind/Boat)	3	not boatable, moderate wind
Economic Factor (*2)	3	Town of Yolo
Human Usage	0	rare, no public access
Seepage Potential	0	no known seepage history
Tidal Fluctuation	1	wave wash
Erosion Hazard	45	Calculate Erosion Hazard

Cherokee Canal, LM 21.9 (DWR MA13 Unit 2 East)



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

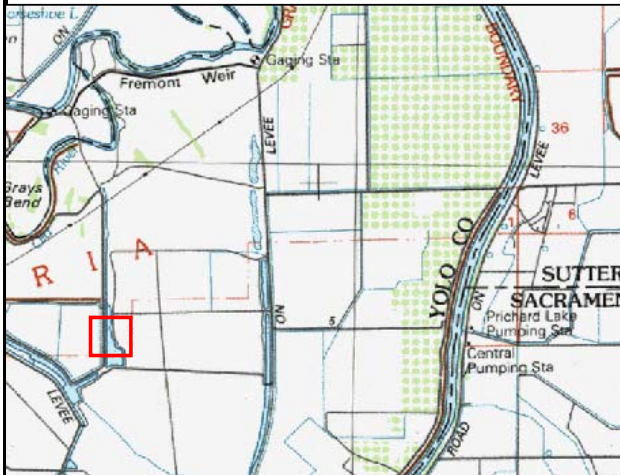
Criteria	Score	Notes
Bank Slope (*2)	1	2.5:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	5	1875 ft long
Location of erosion	3	toe
Bank Stability	2	vertical slope sections less than half bank height
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration expected
Vegetation Cover	1	grass and twigs, likely burned annually, 60% cover
Tree Hazard	0	no trees
Soil Type (*2)	2	silts and clays
Velocity (*2)	4	6 ft/s
Wave Action (Wind/Boat)	3	wave wash from private damming
Economic Factor (*2)	2	small town of Biggs
Human Usage	1	occassional
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence

Erosion Hazard

44

[Calculate Erosion Hazard](#)

Yolo Bypass, LM 2.5 (DWR Unit 1 West)



Site Location Map



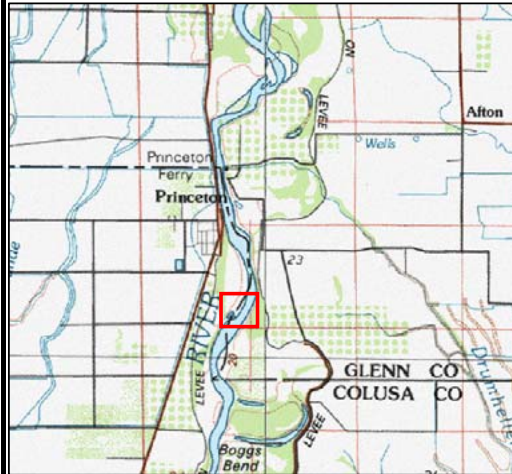
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	1	100 ft
Location of erosion	4	toe and lower slope
Bank Stability	4	vertical sections about half bank height
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration expected
Vegetation Cover	2	50%
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	1	1.5 ft/s
Wave Action (Wind/Boat)	3	moderate wind waves
Economic Factor (*2)	2	town of Knights Landing
Human Usage	1	occassional
Seepage Potential	0	no known seepage history
Tidal Fluctuation	0	not tidally influenced
Erosion Hazard	44	Calculate Erosion Hazard

Sacramento River, RM 163.0L



Site Location Map



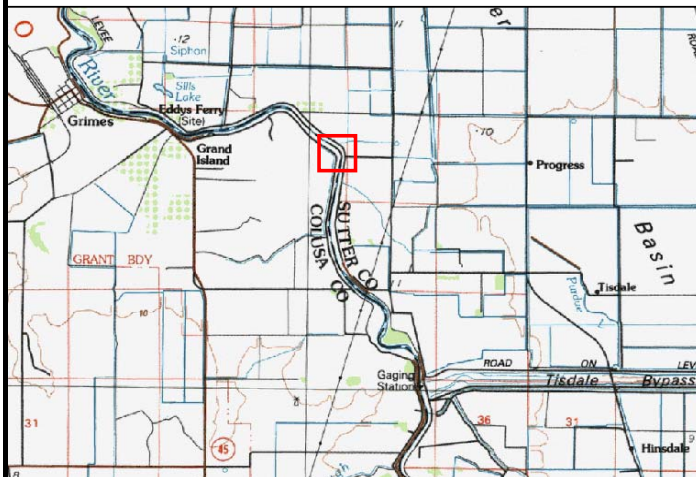
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	0	60 ft
Length of erosion	4	1194 ft
Location of erosion	2	full bank
Bank Stability	2	vertical sections, less than half bank height
Radius of Curvature (R_c/w)	0	$R/w = 5.62$
Site Relative to Bend	3	outside of a gentle bend
Geomorph	2	migration possible on opposite bank
Vegetation Cover	0	80%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	2	clays and silts
Velocity (*2)	5	10.07 ft/s
Wave Action (Wind/Boat)	2	low
Economic Factor (*2)	2	small town of Butte City
Human Usage	0	rare
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	43	Calculate Erosion Hazard

Sacramento River, RM 122.0R



Site Location Map



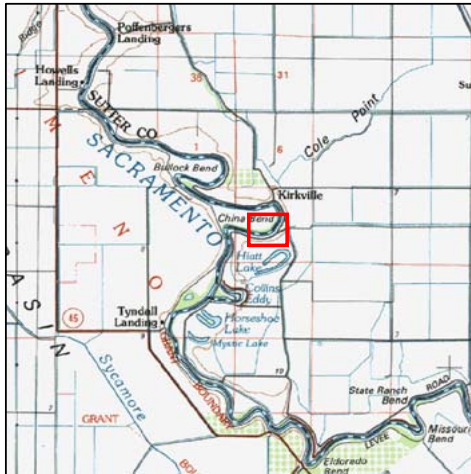
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	0	40 ft
Length of erosion	2	263 ft
Location of erosion	4	lower bank and toe
Bank Stability	4	vertical sections greater than half bank height
Radius of Curvature (R_c/w)	1	$R/w = 4.9$
Site Relative to Bend	0	inside of a bend
Geomorph	0	no migration possible
Vegetation Cover	2	40%
Tree Hazard	5	large trees, exposed roots and leaning
Soil Type (*2)	2	clays and silts
Velocity (*2)	4	5.01 ft/s
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	2	small town of Grimes
Human Usage	3	monthly
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	43	Calculate Erosion Hazard

Sacramento River, RM 104.0L



Site Location Map



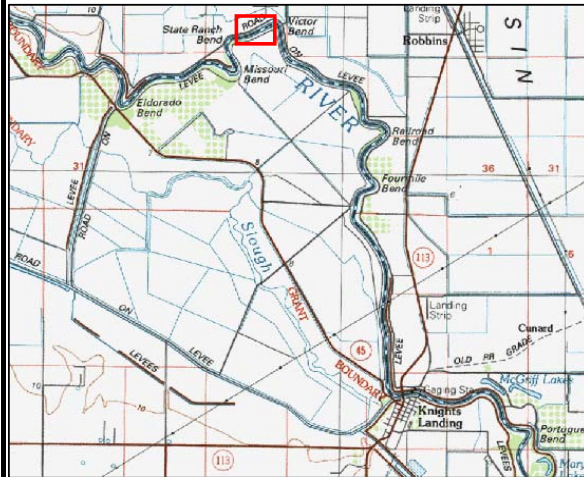
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	0	35 ft
Length of erosion	5	3012 ft
Location of erosion	4	levee, and berm
Bank Stability	2	vertical sections, less than half bank height
Radius of Curvature (R_c/w)	2	$R/w = 3.54$
Site Relative to Bend	4	outside of a 90 degree bend
Geomorph	2	migration possible on opposite bank
Vegetation Cover	1	60% to 70%
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	2	2.25 ft/s
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	1	Farms
Human Usage	1	occassional
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	43	Calculate Erosion Hazard

Sacramento River, RM 96.2L



Site Location Map



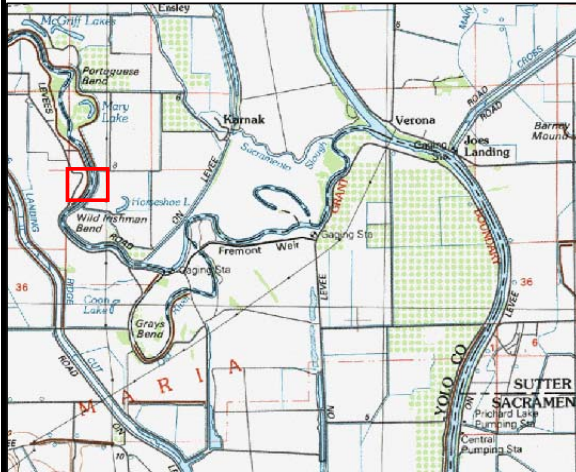
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	0	30 ft
Length of erosion	4	1268 ft
Location of erosion	4	full bank and toe
Bank Stability	5	vertical sections and caves
Radius of Curvature (R_c/w)	0	relatively straight
Site Relative to Bend	1	relatively straight
Geomorph	0	no migration expected
Vegetation Cover	3	30 - 40%
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.23 ft/s
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	1	Farms
Human Usage	0	rare, too steep
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	43	Calculate Erosion Hazard

Sacramento River, RM 86.3L



Site Location Map



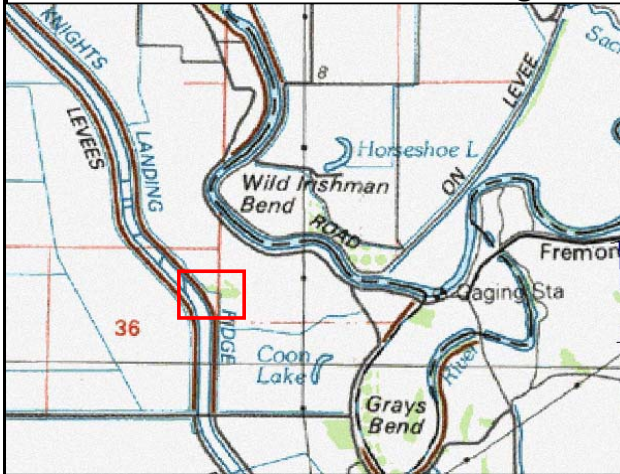
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	0	30 to 50 ft
Length of erosion	5	2824 ft
Location of erosion	3	toe
Bank Stability	5	vertical sections less than half bank height and caves
Radius of Curvature (R_c/w)	0	$R/w = 6.18$
Site Relative to Bend	3	outside of a gentle bend
Geomorph	0	no migration expected
Vegetation Cover	2	about 50%
Tree Hazard	0	no trees on bank
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.35 ft/s
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	1	Farms
Human Usage	1	occassional
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	43	Calculate Erosion Hazard

Knights Landing Ridge Cut, LM 3.1 (KLRD Unit 2 East)



Site Location Map



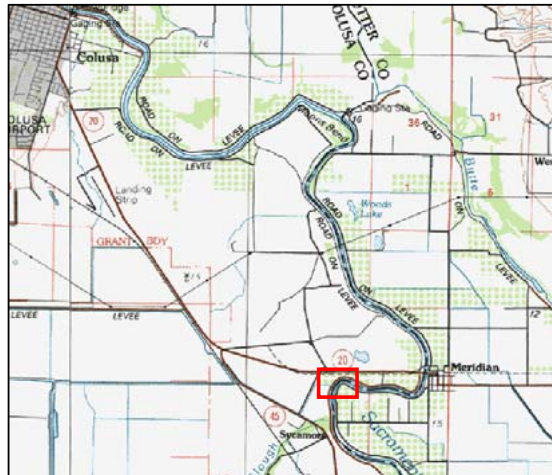
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	2	350 ft
Location of erosion	4	toe and lower slope
Bank Stability	5	pipng holes and vertical sections
Radius of Curvature (R_c/w)	0	$R/w = 5.05$
Site Relative to Bend	3	outside of a gentle bend
Geomorph	0	no migration possible
Vegetation Cover	1	60 to 70%
Tree Hazard	4	large trees, exposed roots
Soil Type (*2)	2	silts with some clays
Velocity (*2)	0	0.11 ft/s
Wave Action (Wind/Boat)	1	occassional wave
Economic Factor (*2)	2	town of Knights landing
Human Usage	1	occassional, no access but close to town
Seepage Potential	0	no known seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	43	Calculate Erosion Hazard

Sacramento River, RM 132.9R



Site Location Map



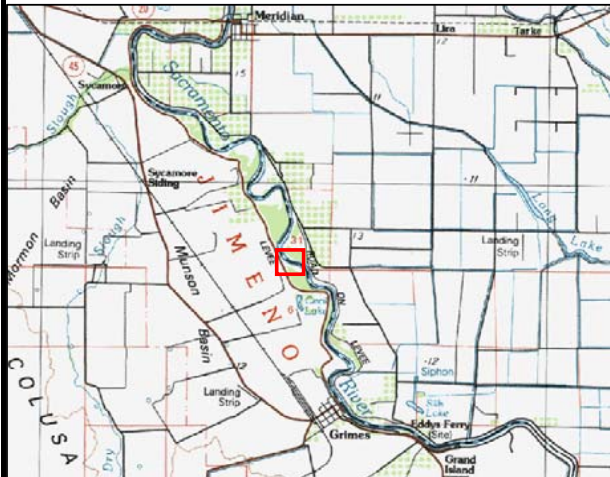
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	1	2.5:1 slope
Berm Width (*2) - Estimated	0	30 ft
Length of erosion	3	578 ft
Location of erosion	2	full bank
Bank Stability	2	small vertical sections
Radius of Curvature (R_c/w)	3	$R/w = 2.79$
Site Relative to Bend	5	outside of a less than 90 degree bend
Geomorph	0	no migration expected
Vegetation Cover	3	40%
Tree Hazard	1	young trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	3	4.97 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	3	Rural town of Colusa
Human Usage	2	seasonal
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	42	Calculate Erosion Hazard

Sacramento River, RM 127.9R



Site Location Map



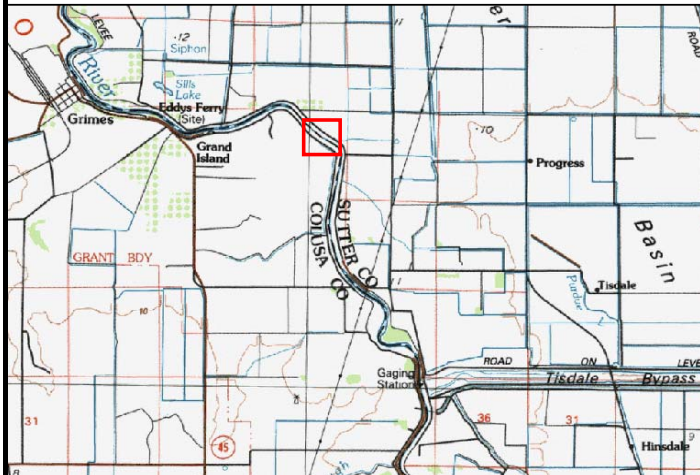
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	0	35 ft
Length of erosion	2	236 ft
Location of erosion	4	bank and toe
Bank Stability	2	vertical at toe
Radius of Curvature (R_c/w)	1	$R/w = 4.52$
Site Relative to Bend	3	outside of a gentle bend
Geomorph	5	migration possible on both banks
Vegetation Cover	2	40%
Tree Hazard	3	large trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	2	2.92 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	2	small town of Grimes
Human Usage	1	occassioanl
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	42	Calculate Erosion Hazard

Sacramento River, RM 122.3R



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	0	40 ft
Length of erosion	2	238 ft
Location of erosion	4	bank and toe
Bank Stability	2	short vertical sections
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	2	40 - 50%
Tree Hazard	4	large trees, exposed roots
Soil Type (*2)	2	clays and silts
Velocity (*2)	4	5.48 ft/s
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	2	small town of Grimes
Human Usage	3	monthly
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	42	Calculate Erosion Hazard

Georgiana Slough, RM 3.7L (a)



Site Location Map



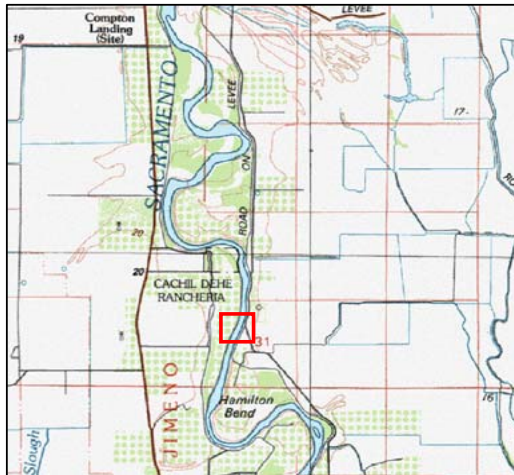
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	4	less than 5 ft
Length of erosion	1	30 ft
Location of erosion	2	levee slope
Bank Stability	1	erosion pockets
Radius of Curvature (R_c/w)	0	$R/w = 6.59$
Site Relative to Bend	0	inside of a bend
Geomorph	2	cutoff potential on opposite bank
Vegetation Cover	0	90% cover
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.04 ft/s
Wave Action (Wind/Boat)	3	moderate boat wake
Economic Factor (*2)	1	Farms
Human Usage	1	occasional
Seepage Potential	0	no seepage history
Tidal Fluctuation	4	4 ft of tidal flux
Erosion Hazard	42	Calculate Erosion Hazard

Sacramento River, RM 152.8L



Site Location Map



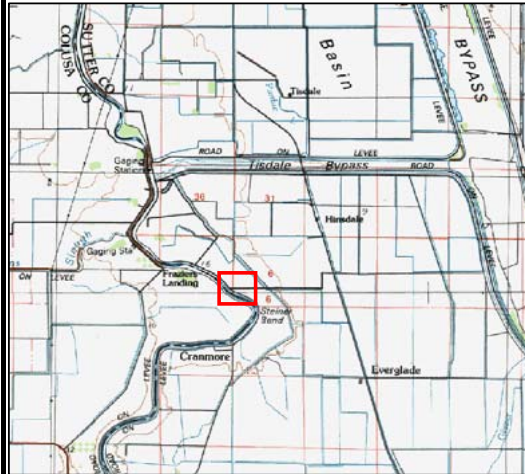
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	0	30 ft
Length of erosion	2	248 ft
Location of erosion	2	full bank
Bank Stability	5	vertical sections and caves
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	2	migration possible on opposite bank
Vegetation Cover	1	70%
Tree Hazard	5	large trees, leaning with exposed roots
Soil Type (*2)	2	clays and silts
Velocity (*2)	3	4.64 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	1	Farms
Human Usage	2	seasonal
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	41	Calculate Erosion Hazard

Sacramento River, RM 116.0L



Site Location Map



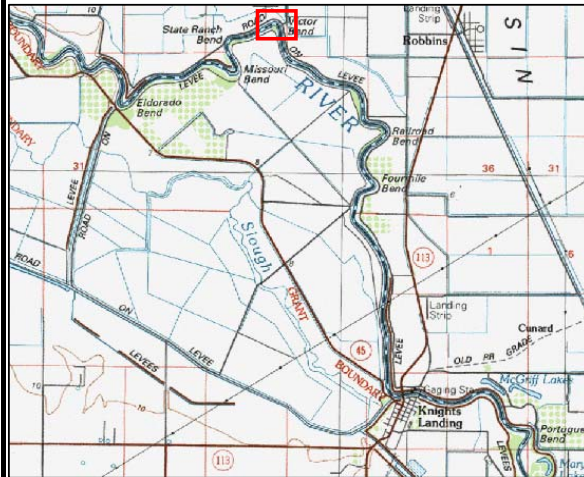
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1.5: slope
Berm Width (*2) - Estimated	0	30 ft
Length of erosion	3	830 ft
Location of erosion	4	toe and berm
Bank Stability	2	vertical sections, less than half bank height
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	2	60%
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.35 ft/s
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	1	Farms
Human Usage	3	monthly
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	41	Calculate Erosion Hazard

Sacramento River, RM 95.8L



Site Location Map



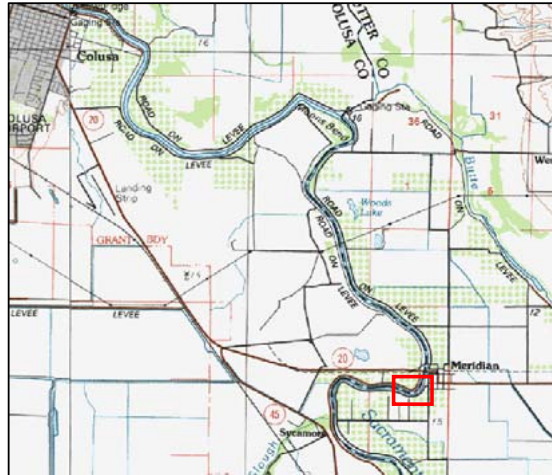
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	0	30 ft
Length of erosion	3	904 ft
Location of erosion	3	toe
Bank Stability	1	animal burrows
Radius of Curvature (R_c/w)	2	$R/w = 3.37$
Site Relative to Bend	5	outside of a tight bend
Geomorph	0	no migration expected
Vegetation Cover	1	70%
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.38 ft/s
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	1	Farms
Human Usage	2	seasonal
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	41	Calculate Erosion Hazard

Sacramento River, RM 133.8L



Site Location Map



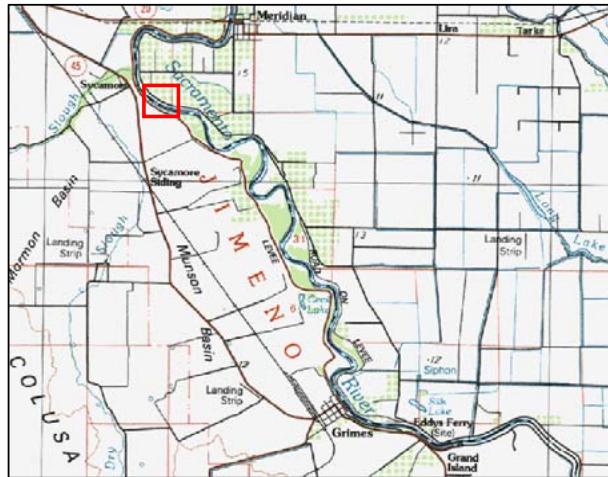
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	1	more than 20 ft of berm
Length of erosion	2	199 ft
Location of erosion	2	lower bank
Bank Stability	2	vertical sections less than half bank height
Radius of Curvature (R_c/w)	4	$R/w = 1.61$
Site Relative to Bend	4	outside of a 90 degree bend
Geomorph	0	no migration expected
Vegetation Cover	1	80%
Tree Hazard	0	no trees
Soil Type (*2)	1	clays and rounded stone
Velocity (*2)	3	4.9 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	2	small town of Meridian
Human Usage	2	adjacent to town, seasonal
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	40	Calculate Erosion Hazard

Sacramento River, RM 131.8L



Site Location Map



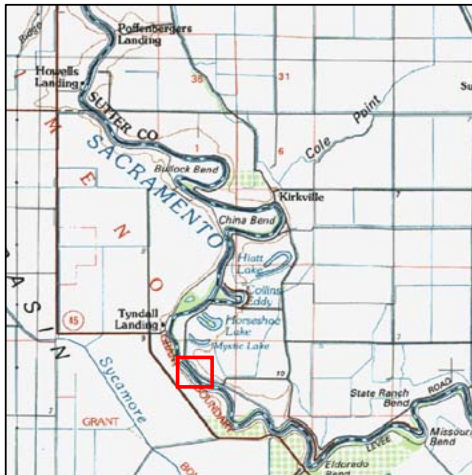
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	1	25 ft
Length of erosion	2	140 ft
Location of erosion	3	toe
Bank Stability	1	caves
Radius of Curvature (R_c/w)	0	$R/w = 12$
Site Relative to Bend	2	just downstream of a bend
Geomorph	0	no migration expected
Vegetation Cover	3	40%
Tree Hazard	3	large trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	4	5.04 ft/s
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	2	small town of Meridian
Human Usage	2	seasonal
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	40	Calculate Erosion Hazard

Sacramento River, RM 101.3R



Site Location Map



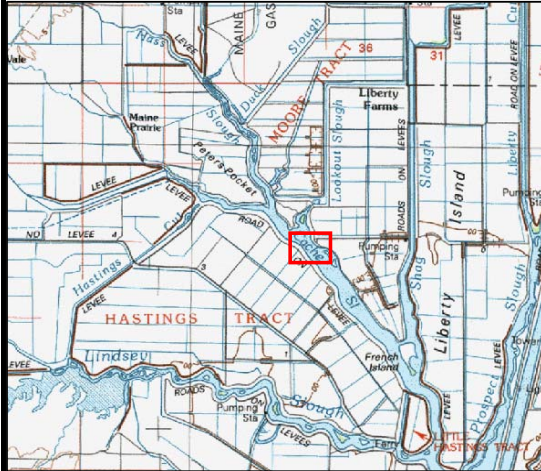
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	2	greater than 10 ft
Length of erosion	2	188 ft
Location of erosion	3	toe
Bank Stability	5	caves less than 4 ft and some vertical sections
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration expected
Vegetation Cover	2	50%
Tree Hazard	0	small trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	3	3.22 ft/s
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	1	Farms
Human Usage	1	occassional
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	40	Calculate Erosion Hazard

Cache Slough, RM 22.8R



Site Location Map



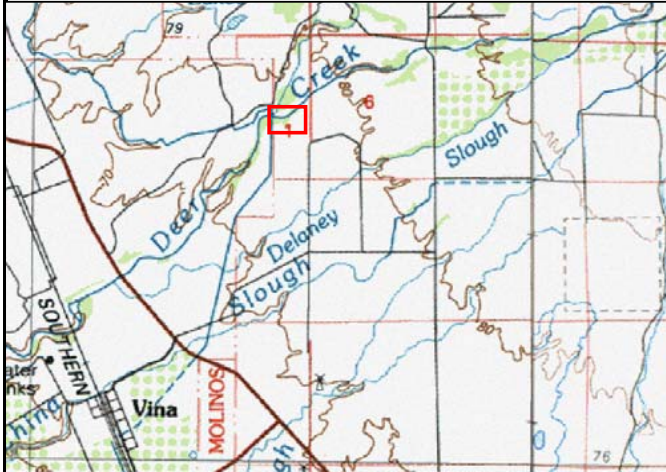
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	1	2.5:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	1	100 ft
Location of erosion	4	mid-lower bank and toe
Bank Stability	2	vertical sections, less than half bank height
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration expected
Vegetation Cover	2	40%
Tree Hazard	0	small trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	0	less than a 1ft/s
Wave Action (Wind/Boat)	4	heavy wind
Economic Factor (*2)	1	Farms
Human Usage	4	weekly, human debris and path
Seepage Potential	0	no known seepage history
Tidal Fluctuation	4	roughly 4 ft of tidal flux
Erosion Hazard	40	Calculate Erosion Hazard

Deer Creek, LM 2.4 (Tehama County Unit 1 South)



Site Location Map



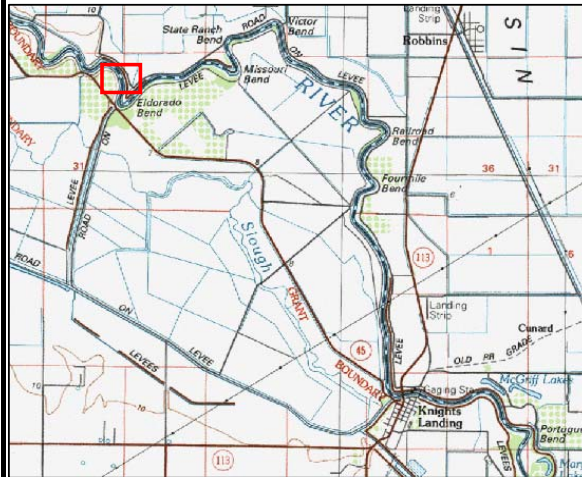
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	2	10 to 15 ft
Length of erosion	1	100 ft
Location of erosion	4	whole bank
Bank Stability	0	no vertical sections or caves
Radius of Curvature (R_c/w)	2	$R/w = 3.58$
Site Relative to Bend	3	outside of a gentle bend
Geomorph	0	no migration expected
Vegetation Cover	1	80%
Tree Hazard	5	trees leaning, about to fall, roots exposed
Soil Type (*2)	3	sands and cobbles
Velocity (*2)	2	3 ft/s
Wave Action (Wind/Boat)	0	no waves
Economic Factor (*2)	2	small town of Vina
Human Usage	2	seasonal
Seepage Potential	0	no known seepage history
Tidal Fluctuation	0	not tidal
Erosion Hazard	40	Calculate Erosion Hazard

Sacramento River, RM 99.0L



Site Location Map



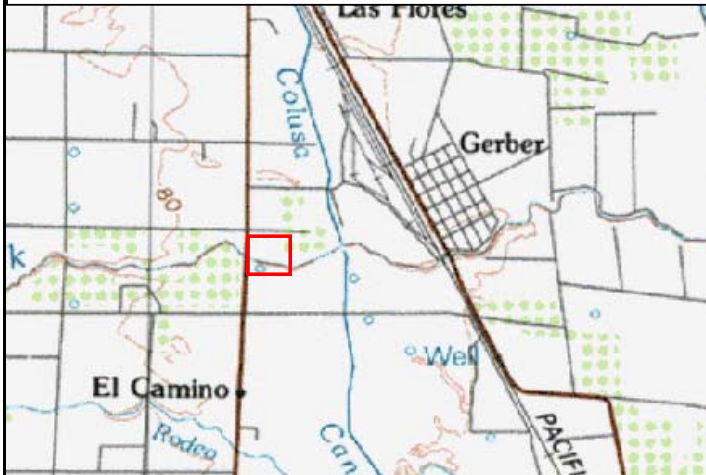
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	2	10 ft
Length of erosion	5	1620 ft
Location of erosion	1	levee slope
Bank Stability	0	no vertical sections or caves
Radius of Curvature (R_c/w)	0	$R/w = 6.4$
Site Relative to Bend	3	outside of a gentle bend
Geomorph	0	no migration expected
Vegetation Cover	1	60%
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	2	2.72 ft/s
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	1	Farms
Human Usage	1	occassional
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	39	Calculate Erosion Hazard

Elder Creek, LM 1.44 (Tehama County Unit 1 North)



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

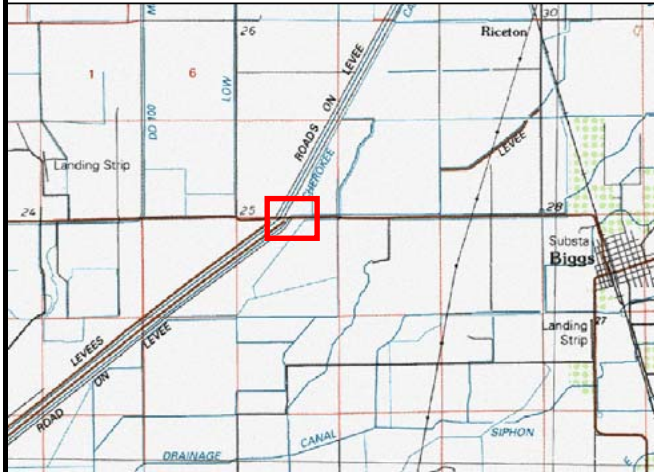
Criteria	Score	Notes
Bank Slope (*2)	4	less than 1:1 slope
Berm Width (*2) - Estimated	1	25 to 30 ft
Length of erosion	2	330 ft
Location of erosion	5	whole bank and underwater
Bank Stability	5	vertical sections and animal burrows
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration expected
Vegetation Cover	2	60%
Tree Hazard	0	no trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	2	3 ft/s
Wave Action (Wind/Boat)	0	no waves
Economic Factor (*2)	2	small town of Gerber
Human Usage	2	seasonal
Seepage Potential	0	no known seepage history
Tidal Fluctuation	0	not tidal

Erosion Hazard

39

[Calculate Erosion Hazard](#)

Cherokee Canal, LM 14.0 (DWR MA13 Unit 2 East)



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

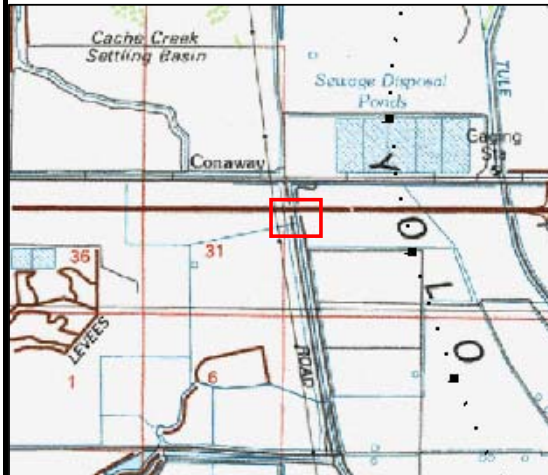
Criteria	Score	Notes
Bank Slope (*2)	1	2.5:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	2	185 ft
Location of erosion	4	toe and lower slope
Bank Stability	3	Piping holes greater than 4 ft
Radius of Curvature (R_c/w)	0	relatively straight
Site Relative to Bend	3	outside of slight bend
Geomorph	0	no migration expected
Vegetation Cover	0	grass covers 80 to 90%
Tree Hazard	0	no trees
Soil Type (*2)	2	silts and clays
Velocity (*2)	3	4 ft/s
Wave Action (Wind/Boat)	0	none
Economic Factor (*2)	2	small town of Biggs
Human Usage	1	occassional
Seepage Potential	0	no known seepage history
Tidal Fluctuation	0	not tidal

Erosion Hazard

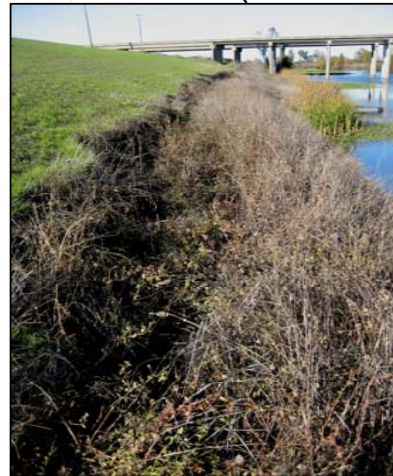
39

[Calculate Erosion Hazard](#)

Yolo Bypass, LM 0.1 (RD 2035 Unit 2 West)



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

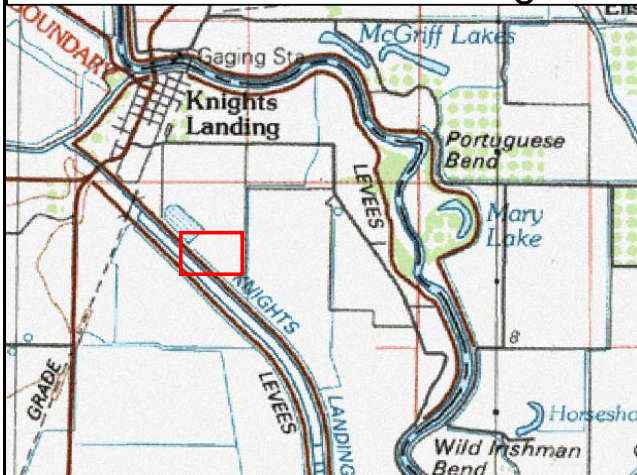
Criteria	Score	Notes
Bank Slope (*2)	0	3:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	2	425 ft
Location of erosion	4	toe and lower slope
Bank Stability	2	vertical sections, less than half bank height
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration expected
Vegetation Cover	1	70%
Tree Hazard	0	no trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	1	1.5 ft/s
Wave Action (Wind/Boat)	4	Heavy wind waves
Economic Factor (*2)	4	City of Woodland
Human Usage	1	occassional
Seepage Potential	0	no known seepage history
Tidal Fluctuation	0	no tidal influence

Erosion Hazard

39

[Calculate Erosion Hazard](#)

Knights Landing Ridge Cut, LM 5.3 (KLRD Unit 2 East)



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

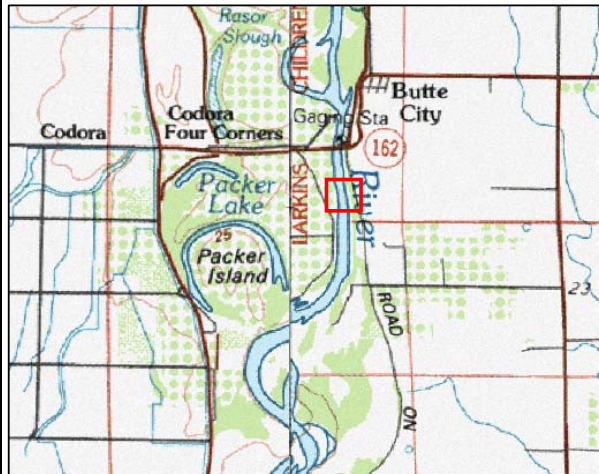
Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	5	0 to 5 ft of berm
Length of erosion	5	8500 ft of erosion
Location of erosion	4	toe and lower slope
Bank Stability	2	6 to 8 ft of vertical slope in sections
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	1	burned annually, 70%
Tree Hazard	1	small trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	0	0.08 ft/s
Wave Action (Wind/Boat)	1	occasional wave
Economic Factor (*2)	2	town of Knights Landing
Human Usage	1	occasional, no access but close to town
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	not tidal influence

Erosion Hazard

38

[Calculate Erosion Hazard](#)

Sacramento River, RM 168.3L



Site Location Map



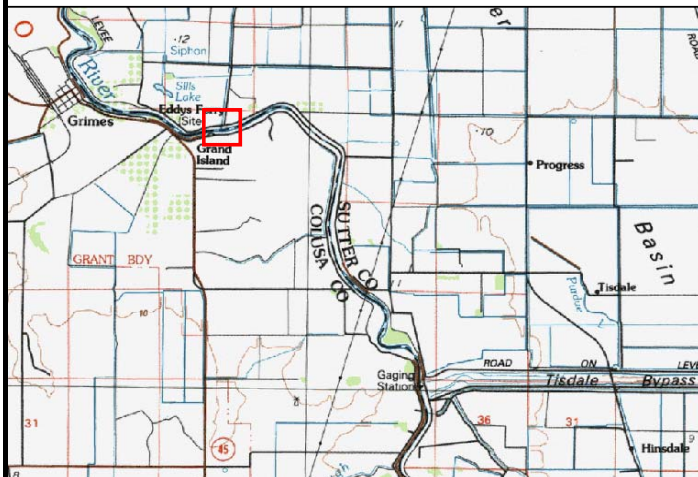
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	1	2.5:1 slope
Berm Width (*2) - Estimated	0	30 ft
Length of erosion	3	522 ft
Location of erosion	3	toe
Bank Stability	0	no vertical sections or caves
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	2	migration possible on opposite bank
Vegetation Cover	1	60 to 70%
Tree Hazard	3	large trees
Soil Type (*2)	4	sand and silts (sand deposited)
Velocity (*2)	3	4.81 ft/s
Wave Action (Wind/Boat)	2	low
Economic Factor (*2)	2	small town of Butte City
Human Usage	2	seasonal
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	37	Calculate Erosion Hazard

Sacramento River, RM 123.7R



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

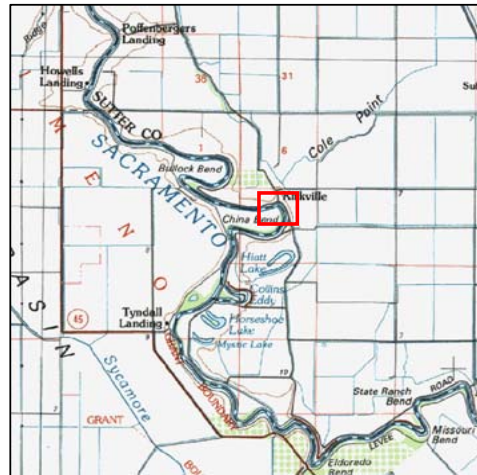
Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	2	15 ft
Length of erosion	2	130 ft
Location of erosion	3	toe
Bank Stability	0	no vertical sections or caves
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	2	just downstream from a bend
Geomorph	0	no migration possible
Vegetation Cover	0	80 to 90%
Tree Hazard	0	no trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	4	5.3 ft/s
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	2	small town of Grimes
Human Usage	0	rare
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence

Erosion Hazard

37

[Calculate Erosion Hazard](#)

Sacramento River, RM 104.5L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	0	40 ft
Length of erosion	4	1158 ft
Location of erosion	4	berm and toe
Bank Stability	0	no vertical sections or caves
Radius of Curvature (R_c/w)	1	$R/w = 4.84$
Site Relative to Bend	4	outside of a 90 degree bend
Geomorph	2	migration possible on opposite bank
Vegetation Cover	1	70%
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	1	1.68 ft/s
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	1	Farms
Human Usage	1	occassional
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	37	Calculate Erosion Hazard

Elder Creek, LM 3.0 (Tehama County Unit 2 South)



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

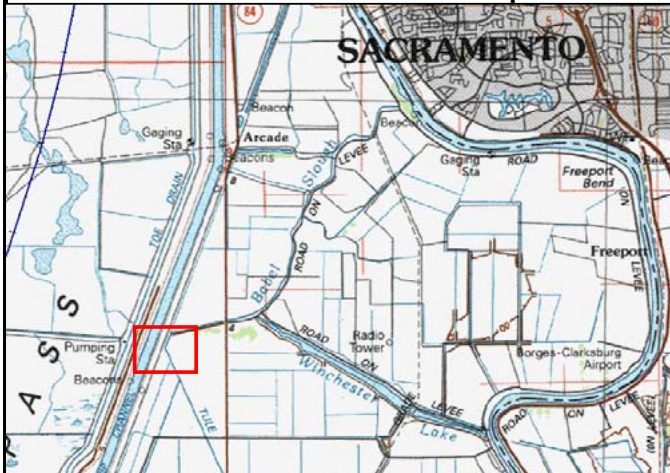
Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	1	25 to 30 ft
Length of erosion	2	130 ft
Location of erosion	4	whole bank
Bank Stability	0	no holes or vertical sections
Radius of Curvature (R_c/w)	4	$R/w = 1.93$
Site Relative to Bend	5	outside of a tight bend
Geomorph	0	tight levees, no migration expected
Vegetation Cover	0	80%
Tree Hazard	0	small trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	2	3 ft/s
Wave Action (Wind/Boat)	0	no waves
Economic Factor (*2)	2	small town of Gerber
Human Usage	2	seasonal
Seepage Potential	0	no known seepage history
Tidal Fluctuation	0	no tidal flux

Erosion Hazard

37

[Calculate Erosion Hazard](#)

Deep Water Ship Channel, LM 5.01 (RD 999 Unit 1 East)



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

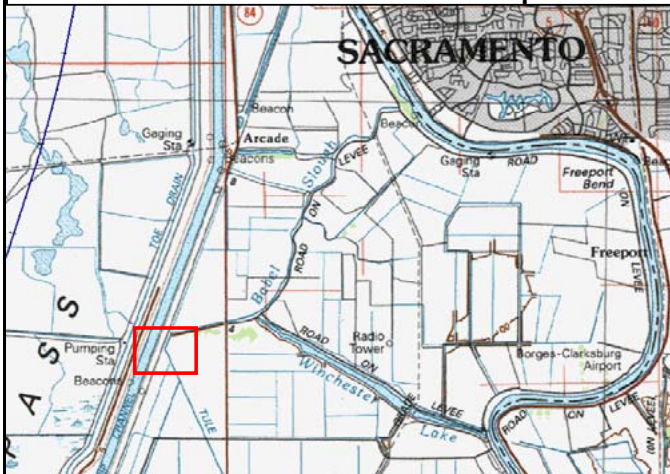
Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	1	15 ft
Location of erosion	1	levee slope
Bank Stability	0	no vertical sections or caves
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	1	lots of grass, some shrubs, 80%
Tree Hazard	2	medium tree
Soil Type (*2)	2	clays and silts
Velocity (*2)	1	1.3 ft/s
Wave Action (Wind/Boat)	5	Cargo Ships
Economic Factor (*2)	2	small town of Clarksburg
Human Usage	0	rare
Seepage Potential	0	no known seepage history
Tidal Fluctuation	2	about 2 ft of tidal flux

Erosion Hazard

37

[Calculate Erosion Hazard](#)

Deep Water Ship Channel, LM 5.0 (RD 999 Unit 1 East)



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

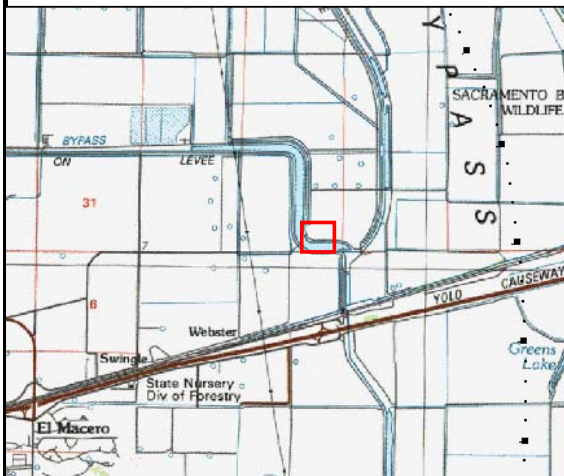
Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	1	25 ft
Location of erosion	1	levee slope
Bank Stability	0	no bvertical sections or caves
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	1	lots of grass, some shrubs, 80%
Tree Hazard	2	medium tree
Soil Type (*2)	2	clays and silts
Velocity (*2)	1	1.3 ft/s
Wave Action (Wind/Boat)	5	Cargo Ships
Economic Factor (*2)	2	small town of Clarksburg
Human Usage	0	rare
Seepage Potential	0	no known seepage history
Tidal Fluctuation	2	about 2 ft of tidal flux

Erosion Hazard

37

[Calculate Erosion Hazard](#)

Willow Slough, LM 0.6 (DWR Unit 1 North)



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

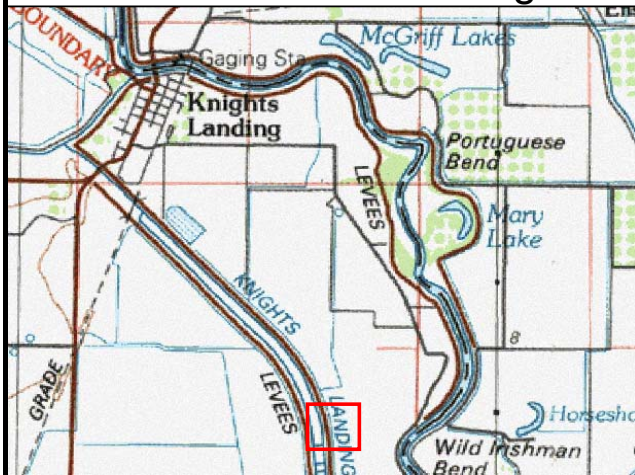
Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	5	2000 ft of erosion
Location of erosion	0	upper levee slope
Bank Stability	2	short vertical sections
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration expected
Vegetation Cover	2	50%
Tree Hazard	0	no trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	0	0.5 ft/s
Wave Action (Wind/Boat)	3	moderate waves
Economic Factor (*2)	1	Farms
Human Usage	2	seasonal for duck hunting
Seepage Potential	0	no known seepage issues
Tidal Fluctuation	0	no tidal influence

Erosion Hazard

37

[Calculate Erosion Hazard](#)

Knights Landing Ridge Cut, LM 4.3 (KLRD Unit 2 East)



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

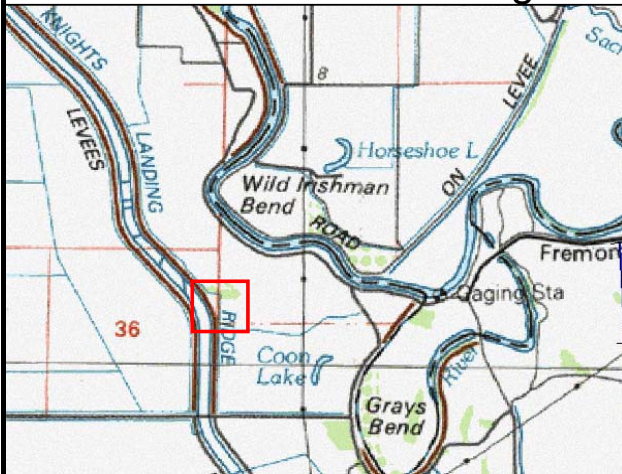
Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	2	350 ft
Location of erosion	4	toe and lower slope
Bank Stability	2	vertical sections, less than half bank height
Radius of Curvature (R_c/w)	0	relatively straight
Site Relative to Bend	1	relatively straight
Geomorph	0	no migration possible
Vegetation Cover	2	50 to 60%
Tree Hazard	1	young trees
Soil Type (*2)	2	silts with some clay
Velocity (*2)	0	0.09 ft/s
Wave Action (Wind/Boat)	1	occassional wave
Economic Factor (*2)	2	town of Knights Landing
Human Usage	1	occassional, no access but close to town
Seepage Potential	0	no known seepage history
Tidal Fluctuation	0	no tidal influence

Erosion Hazard

36

[Calculate Erosion Hazard](#)

Knights Landing Ridge Cut, LM 3.0 (KLRD Unit 2 East)



Site Location Map



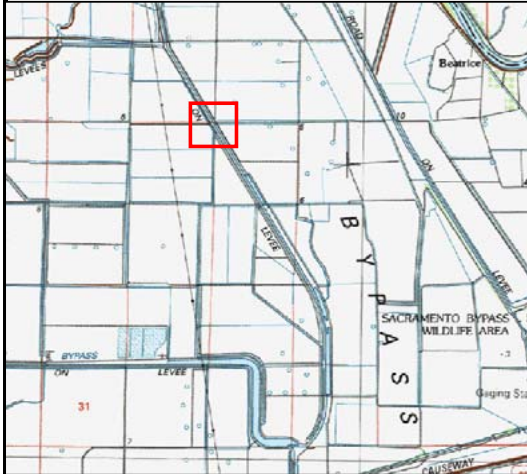
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	3	1000 ft
Location of erosion	4	toe and lower bank slope
Bank Stability	0	no vertical sections or caves
Radius of Curvature (R_c/w)	0	$R/w = 5.05$
Site Relative to Bend	3	outside of a slight bend
Geomorph	0	no migration possible
Vegetation Cover	0	80% + cover
Tree Hazard	1	young trees
Soil Type (*2)	2	silts with some clays
Velocity (*2)	0	0.11 ft/s
Wave Action (Wind/Boat)	1	occassioanl wave
Economic Factor (*2)	2	town of Knights Landing
Human Usage	1	occassional, no access but near town
Seepage Potential	0	no known seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	35	Calculate Erosion Hazard

Yolo Bypass, LM 3.8 (RD 2035 Unit 2 West)



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

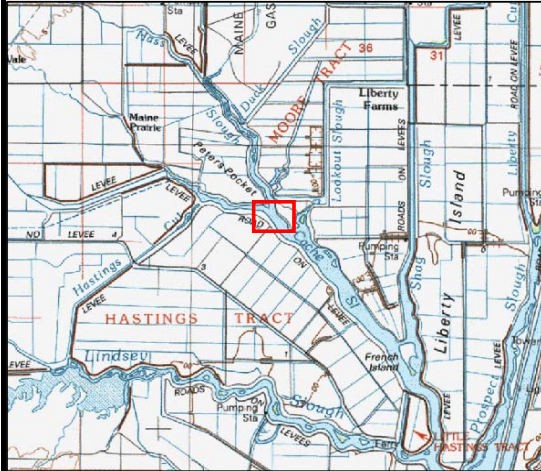
Criteria	Score	Notes
Bank Slope (*2)	0	3:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	5	1600 ft
Location of erosion	4	toe and lower slope
Bank Stability	2	vertical sections, less than half bank height
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration expected
Vegetation Cover	0	80 to 90 %
Tree Hazard	0	no trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	1	1.5 ft/s
Wave Action (Wind/Boat)	4	heavy wind wave
Economic Factor (*2)	1	Farms
Human Usage	1	occassional
Seepage Potential	0	no known seepage issues
Tidal Fluctuation	0	no tidal influence

Erosion Hazard

35

[Calculate Erosion Hazard](#)

Cache Slough, RM 23.6R



Site Location Map



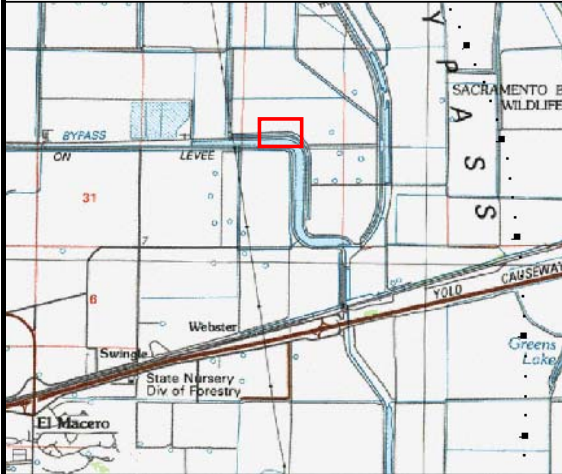
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	0	no berm
Length of erosion	3	803 ft
Location of erosion	4	toe and lower bank
Bank Stability	2	some vertical sections, less than half bank slope
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	2	just downstream of a bend
Geomorph	0	tight levees, no migration expected
Vegetation Cover	2	blotchy coverage, dense in spots, 50%
Tree Hazard	0	no trees
Soil Type (*2)	2	clay and silts
Velocity (*2)	0	0.27 ft/s
Wave Action (Wind/Boat)	4	Heavy
Economic Factor (*2)	1	Farms
Human Usage	3	adjacent to levee road, monthly
Seepage Potential	0	not seepage history
Tidal Fluctuation	4	4 ft of tidal flux
Erosion Hazard	34	Calculate Erosion Hazard

Willow Slough, LM 2.2 (RD 2035 Unit 3 North)



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

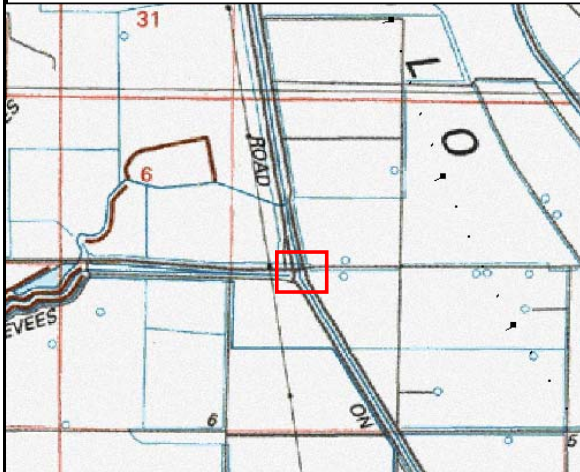
Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	4	1500 ft
Location of erosion	1	mid levee slope
Bank Stability	2	short vertical sections
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	1	80%
Tree Hazard	0	no trees
Soil Type (*2)	2	slits and clays
Velocity (*2)	0	0.6 ft/s
Wave Action (Wind/Boat)	3	moderate waves
Economic Factor (*2)	1	Farms
Human Usage	2	season, frequent for Duck Hunters
Seepage Potential	0	no known seepage issues
Tidal Fluctuation	0	no tidal influence

Erosion Hazard

34

[Calculate Erosion Hazard](#)

Yolo Bypass, LM 2.0 (RD 2035 Unit 2 West)



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

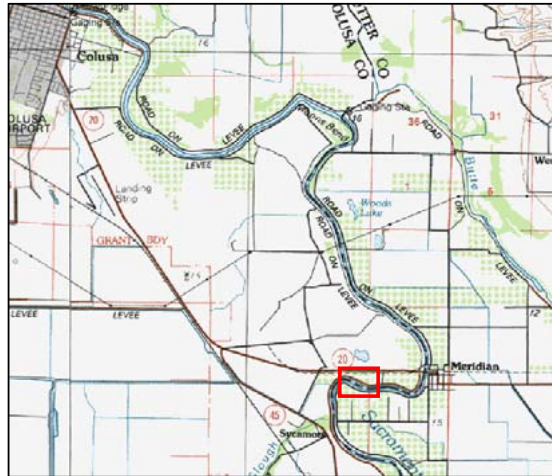
Criteria	Score	Notes
Bank Slope (*2)	0	3:1 slope
Berm Width (*2) - Estimated	5	no berm
Length of erosion	2	275 ft
Location of erosion	4	toe and lower slope
Bank Stability	2	vertical sections, less than half bank height
Radius of Curvature (R_c/w)	0	relatively straight
Site Relative to Bend	1	relatively straight
Geomorph	0	no migration expected
Vegetation Cover	0	90%
Tree Hazard	0	no trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	1	1.5 ft/s
Wave Action (Wind/Boat)	4	heavy wind waves
Economic Factor (*2)	2	Farms
Human Usage	1	occassional
Seepage Potential	0	no known seepage issues
Tidal Fluctuation	0	no tidal influence

Erosion Hazard

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[Calculate Erosion Hazard](#)

Sacramento River, RM 133.0L



Site Location Map



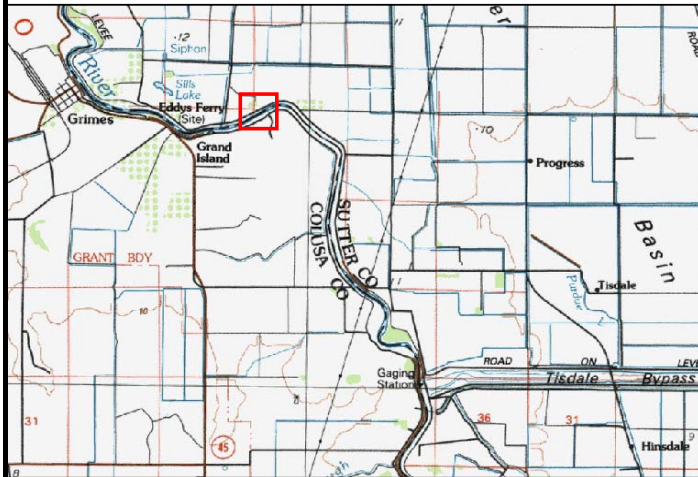
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	0	30 ft
Length of erosion	4	1069 ft
Location of erosion	2	lower bank
Bank Stability	2	vertical sections less than half bank height
Radius of Curvature (R_c/w)	0	relatively straight
Site Relative to Bend	2	just downstream of a bend
Geomorph	0	no migration expected
Vegetation Cover	2	60%
Tree Hazard	0	no trees
Soil Type (*2)	1	clays and rounded stone
Velocity (*2)	3	4.97 ft/s
Wave Action (Wind/Boat)	3	moderate
Economic Factor (*2)	2	small town of Meridian
Human Usage	2	seasonal
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	33	Calculate Erosion Hazard

Sacramento River, RM 123.3L



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	0	30 ft
Length of erosion	2	108 ft
Location of erosion	4	full bank and toe
Bank Stability	0	no vertical sections or caves
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	2	40%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	2	clays and silts
Velocity (*2)	3	4.82 dt/s
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	1	farms
Human Usage	2	seasonal
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence

Erosion Hazard

33

[Calculate Erosion Hazard](#)

Sacramento River, RM 136.6L



Site Location Map



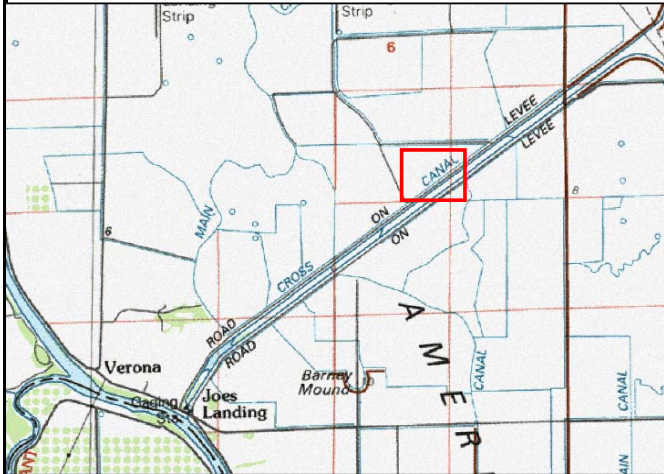
Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	0	30 ft
Length of erosion	3	615 ft
Location of erosion	2	lower bank
Bank Stability	0	no vertical sections or caves
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	1	70%
Tree Hazard	0	no trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	3	4.91 ft/s
Wave Action (Wind/Boat)	2	moderate
Economic Factor (*2)	2	small town of Meridian
Human Usage	2	seasonal
Seepage Potential	0	no seepage history
Tidal Fluctuation	0	no tidal influence
Erosion Hazard	31	Calculate Erosion Hazard

Natomas Cross Canal, 3.0 (RD 1001 Unit 5 North)



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	0	40 ft of berm
Length of erosion	1	100 ft
Location of erosion	4	toe and lower slope
Bank Stability	0	no vertical sections or caves
Radius of Curvature (R_c/w)	0	straight
Site Relative to Bend	1	straight
Geomorph	0	no migration possible
Vegetation Cover	2	50%
Tree Hazard	0	no trees
Soil Type (*2)	2	silts with clays
Velocity (*2)	1	1.5 ft/s
Wave Action (Wind/Boat)	0	no waves
Economic Factor (*2)	2	small town of Verona
Human Usage	1	occassional
Seepage Potential	5	known seepage issues in this area
Tidal Fluctuation	0	no tidal influence

Erosion Hazard

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[Calculate Erosion Hazard](#)

Elder Creek, LM 4.1 (Tehama County Unit 1 North)



Site Location Map



Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	2	10 ft
Length of erosion	2	300 ft
Location of erosion	0	upper levee slope
Bank Stability	0	no vertical sections or caves
Radius of Curvature (R_c/w)	0	relatively straight
Site Relative to Bend	1	relatively straight
Geomorph	0	no migration expected
Vegetation Cover	1	minimal in erosion area, 80% coverage on remaining land
Tree Hazard	2	medium trees
Soil Type (*2)	2	clays and gravels
Velocity (*2)	2	3 ft/s
Wave Action (Wind/Boat)	0	no waves
Economic Factor (*2)	2	small town of Gerber
Human Usage	2	seasonal
Seepage Potential	0	no known seepage history
Tidal Fluctuation	0	no tidal influence

Erosion Hazard

28

[Calculate Erosion Hazard](#)